

# HL7 Overview and Specifications

## Revision History

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1.1	Initial Revision	IICC – M.J	1/9/2006
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This document describes the HL7 interface requirements for MD Coder. It outlines supported messages, message structure and communication transports.

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## Overview

MD Coder is a suite of software comprised of a web based application and mobile software that provides physicians with a system to capture their charges efficiently and effectively at the point of care.

The ability to connect with third party systems such as Practice Management, Hospital Information and Electronic Medical Records is a strength of MD Coder. The system robustly supports the industry standard HL7 specification. This document sets out to provide the detailed specifications for implementing an HL7 interface with MD Coder.

## HL7 (Health Level 7)

This interface is based on HL7 version 2.3 and is backwards compatible with previous versions of HL7. More information on HL7 can be found at [www.hl7.org](http://www.hl7.org). Specifically please use the HL7 2.3 implementation guide as the primary reference of supported messages outlined in this document located at:

<http://www.hl7.org/Special/IG/final.pdf>

## Planning and Organization

The development of a project scope and work plan is not within the scope of this document but is worth mentioning so that the context of this document is clearly understood. Prior to receiving this document, an MDTech interface coordinator will have created a project scope and work plan which clearly defines the scope of the project, list key stake holders and outline at a high level the communication plan. The project scope and work plan should also outline the testing methodology and test data to be used as part of the implementation of the project as well as final conditions of satisfaction.

## Communication Transports

MD Coder supports HL7 messaging through a direct TCP/IP socket connection and file transfer via a shared directory. In order to meet HIPAA regulations, LAN and WAN connections between systems must be made secure. This document does not discuss how security is to be implemented or managed. For more information on this particular topic and the recommended approach of MDTech, please refer to our HL7 Connectivity guide, available upon request from MDTech.

# Supported Message Structure

## Message Types and Events

Message	Event	Description
<b>ADT</b>		
	A01	Patient Check-In
	A04	Patient Registration
	A08	Patient Demographic Update
<b>DFT</b>	P03	Detailed Financial Transaction
<b>SCH</b>		
	S12	New appointment booking
	S13	Appointment rescheduling
	S14	Appointment modification
	S15	Appointment cancellation
	S16	Appointment discontinuation
	S17	Appointment deletion
	S18	Addition of service/resource on appointment
	S19	Modification of service/resource on appointment

	S20	Cancellation of service/resource on appointment
	S21	Discontinuation of service/resource on appointment
	S22	Deletion of service/resource on appointment
	S23	Blocked schedule time slot(s)
	S24	Opened ("un-blocked") schedule time slot(s)
	S26	Notification that patient did not show up for scheduled appointment
<b>ACK</b>		General Acknowledgement

## Segment Description

<b>Segment</b>	<b>Description</b>
MSH	Message Header
EVN	Event Type
PID	Patient Identification
PV1	Patient Visit
PV2	Patient Visit–Additional Information
GT1	Guarantor Information
IN1	Insurance Information
FT1	Financial Transaction
SCH	Appointment Schedule Activity

AIL	Appointment Information–Location Resource
AIP	Appointment Information–Personnel Resource
PRA	Practitioner Detail
NTE	Note
RGS	Appointment Information – Resource Group
MFI	Master File Identification
MSA	Message Acknowledgement

## Message Matrix

Events	A01	A04	A08	P03	ACK
<b>Segments</b>	MSH	MSH	MSH	MSH	MSH
	EVN	EVN	EVN	EVN	MSA
	PID	PID	PID	PID	
	PV1	GT1	GT1	PV1	
	PV2	IN1	IN1	FT1	
	GT1				
	IN1				
Inbound   Outbound	I/O	I	I	I/O	I/O

Events	SIU *	All SIU events have the same structure
<b>Segments</b>	MSH	Required
	SCH	Required
	PID	Required
	PV1	
	PV2	
	DG1	Repeatable
	NTE	
	AIP	Required
	AIL	Required
	RGS	
	AIG	
Inbound   Outbound	I/O	I/O