

**Swearingen Software**



**HL7 Inbound & Outbound  
Specs  
2009**

**Copyright © 1982–2009 Swearingen Software, Inc. All rights reserved.**

**Swearingen Software, Inc.  
6950 Empire Central Drive  
Houston, TX 77040**

## Table of Contents

<b>HL7 Inbound Specs</b> .....	<b>2</b>
<b>Program Description</b> .....	<b>2</b>
<b>Types of Messages</b> .....	<b>2</b>
ADT.....	2
Admit.....	2
Discharge.....	2
Transfer.....	2
Allergy.....	2
Merge.....	2
ORM.....	2
Orders.....	2
ORU.....	3
Result Messages.....	3
SIU.....	3
Schedules.....	3
PMU.....	3
Personnel Master Messages.....	3
MDM.....	3
Medical Document Management.....	3
<b>Standard Segments Processed from ADT Messages</b> .....	<b>4</b>
<b>Standard Segments Processed from ORM Messages (Order Messages)</b> .....	<b>4</b>
<b>Standard Segments Processed from ORM Messages (Order Messages)</b> .....	<b>4</b>
<b>Standard Segments Processed from ORU Messages (Result Messages)</b> .....	<b>5</b>
<b>Standard Segments Processed from SIU Messages (Schedule Messages)</b> .....	<b>5</b>
<b>Standard Segments Processed from MDM Messages (Medical Document Management, Rich Text)</b> .....	<b>6</b>
<b>Segment/Field Usage</b> .....	<b>7</b>
ADT Configurable Segments .....	10
ORM Configurable Segments.....	10
ORU Configurable Segments.....	11
SIU Configurable Segments .....	11
PMU Configurable Segments.....	11
MDM Configurable Segments .....	12
<b>HL7 Outbound Specs</b> .....	<b>13</b>
<b>Program Description</b> .....	<b>13</b>
<b>Types of Messages</b> .....	<b>13</b>
ADT.....	13
DFT.....	13
ORM.....	13
ORU.....	13
OSU.....	13
MDM.....	13
<b>Segment/Field Usage for ADT Messages</b> .....	<b>13</b>
<b>Segment/Field Usage for DFT Messages</b> .....	<b>14</b>
<b>Segment/Field Usage for ORM Messages</b> .....	<b>15</b>
ORM Configurable Segments.....	18
<b>Segment/Field Usage for ORU messages</b> .....	<b>18</b>

# HL7 Inbound Specs

## Program Description

This program interfaces to any HL7 compliant HIS. HL7LINK will accept ADT and ORM transactions from the HIS.

The configuration file allows you to specify the location of key RISynergy fields such as PATIENT#, ALT-ID1, ALT-ID2, MISC 1, MISC2, etc. These fields can be extracted from any HL7 segments in the transaction.

## Types of Messages

### ADT

#### Admit

(A01, A04, A05, A08, A28, A31)

Please Note: We can configure any event code to be treated as an Admit.

#### Discharge

(A03, A09, A11)

#### Transfer

(A02, A06, A07, A17)

#### Allergy

(A60)

#### Merge

(A18, A40)

### ORM

#### Orders

(O01)

The order control codes that we process are found in ORC1:

New Order (NW)

Cancel Order (CA)

Send Number (SN)

Number Assigned (NA)

Change Order (XO)

Please Note: The system is configurable such that it can create a patient record from the PID segment of an incoming order. This would act like an ADTA04 or A08 message.

## **ORU**

### **Result Messages**

(R01)

## **SIU**

### **Schedules**

New Schedule Message (S12)

Re-Schedule Message (S13)

Update to Schedule Message (S14)

Cancel Schedule Message(S15)

## **PMU**

### **Personnel Master Messages**

(B01, B02, B03, B04, B05, B06)

## **MDM**

### **Medical Document Management**

(TXA02, TXA06, TXA07, TXA09, TXA11, TXA14, TXA21, TXA22, TXA23)

## Standard Segments Processed from ADT Messages

Segment	Description
MSH	Message Header
EVN	Event Type
PID	Patient Identification
AL1	Allergy Information
IN1	Insurance
IN2	Secondary Insurance
IN3	Tertiary Insurance
MRG	Merge

**Please Note:** Any segment not mentioned above can have information extracted through our customizable extract settings.

## Standard Segments Processed from ORM Messages (Order Messages)

Segment	Description
MSH	Message Header
PID	Patient Identification
PV1	Patient Visit
ORC	Common Order
OBR	Order Detail
DG1	Diagnosis
NTE	Notes and Comments

**Please Note:** Any segment not mentioned above can have information extracted through our customizable extract settings.

## Standard Segments Processed from ORM Messages (Order Messages)

Segment	Description
MSH	Message Header
PID	Patient Identification
PV1	Patient Visit
ORC	Common Order

OBR	Order Detail
-----	--------------

**Please Note:** Any segment not mentioned above can have information extracted through our customizable extract settings.

## Standard Segments Processed from ORU Messages (Result Messages)

Segment	Description
MSH	Message Header
PID	Patient Identification
PV1	Patient Visit
ORC	Common Order
OBR	Order Detail
OBX	Observation / Result

**Please Note:** Any segment not mentioned above can have information extracted through our customizable extract settings.

## Standard Segments Processed from SIU Messages (Schedule Messages)

Segment	Description
MSH	Message Header
EVN	Event Type
PID	Patient Identification
PV1	Patient Visit
TXA	Document Notification

**Please Note:** Any segment not mentioned above can have information extracted through our customizable extract settings.

## Standard Segments Processed from MDM Messages (Medical Document Management, Rich Text)

Segment	Description
MSH	Message Header
SCH	Schedule Activity Information
AIS	Appointment Information Service
AIL	Appointment Information Location

**Please Note:** Any segment not mentioned above can have information extracted through our customizable extract settings.



## Segment/Field Usage

Segment	Field	Sub Field	Description
<b>AIL</b>	03	N/A	Scheduled Room
	04	N/A	Procedure Code
<b>AIS</b>	04	N/A	Schedule Date / Time
<b>DG1</b>	03	N/A	Reason for Exam
<b>EVN</b>	01	N/A	Event Type Code
<b>IN1</b>	03	N/A	Carrier Code
	04	N/A	Carrier Name
	05	N/A	Carrier Address
	06	N/A	Carrier Contact
	07	N/A	Carrier Phone
	08	N/A	Group Number
	15	N/A	Plan Type
	16	N/A	Name of Insured
	17	N/A	Relationship
	18	N/A	Date of Birth of Insured
	19	N/A	Address of Insured
	36	N/A	Policy Number
	37	N/A	Policy Deductible
43	N/A	Sex of Insured	
<b>MRG</b>	01	N/A	Prior Patient Identifier
<b>MSH</b>	01	N/A	Field Separator
	02	N/A	Encoding Characters
	03	N/A	Sending Application
	04	N/A	Sending Facility
	05	N/A	Receiving Application

Segment	Field	Sub Field	Description
	06	N/A	Receiving Facility
	07	N/A	Date/Time of Message
	09	N/A	Message Type
	10	N/A	Message Control ID
	12	N/A	Version ID
<b>NTE</b>	03	N/A	Comments
<b>OBR</b>	02	1	HIS Order Number (Placer)
	03	1	RMS Order Number (Filer)
	04	N/A	Procedure Code
	16	1	Attending Physician Code (Physician 1)
	27	4	Visit Date/Time (YYYYMMDDHHMM)
<b>OBX</b>			
	05	N/A	Observation Value (Body of the report)
	11	N/A	Observation Result Status
<b>ORC</b>	01	N/A	Order Control ex: NW, CA
	02	1	HIS Order Number (Placer)
	03	1	RMS Order Number (Filler)
	07	4	Visit Date/Time (YYYYMMDDHHMM)
	12	1	Attending Physician Code (Physician 1)
<b>PID</b>	03	N/A	Medical Record Number
	04	N/A	Alternate Patient Location
	05	1	Patient Last Name
		2	Patient First Name
		3	Patient Middle Initial
	07	N/A	Date of Birth (YYYYMMDD)
	08	N/A	Sex
	11	1	Address Line 1
		2	Address Line 2

Segment	Field	Sub Field	Description
		3	City
		4	State
		5	Zip
	13	N/A	Home Phone Number
	14	N/A	Work Phone Number
	16	N/A	Work Phone Extension
	18	N/A	Account Number
	19	N/A	Social Security Number
<b>PV1</b>	03	2	Room Number
		3	Bed Number
	07	1	Attending Physician Code (Physician 1)
	08	1	Referring Physician Code (Physician 3)
	09	1	Consulting Physician Code (Physician 4)
	17	1	Admitting Physician Code (Physician 2)
	18	1	Visit Type
	36	N/A	Discharge Disposition
	45	N/A	Discharge Date (YYYYMMDD)
<b>SCH</b>	02	N/A	Schedule Order Number
	07	N/A	Reason for Test
	09	N/A	Duration of Test
<b>TXA</b>	02	N/A	Document Type
<b>TXA</b>	06	N/A	Dictation / Time
<b>TXA</b>	07	N/A	Transcription Date / Time
<b>TXA</b>	09	1	Dictating Physician Code
<b>TXA</b>		2	Dictation Physician Last Name
<b>TXA</b>		3	Dictation Physician First Name
<b>TXA</b>		4	Dictation Physician Middle Initial
<b>TXA</b>	11	1	Transcriptionist Code
<b>TXA</b>		2	Transcriptionist Last Name
<b>TXA</b>		3	Transcriptionist First Name

Segment	Field	Sub Field	Description
TXA		4	Transcriptionist Middle Initial
TXA	14	N/A	Placer Order Number (RMS Order Number)
TXA	21	N/A	Addendum Marker
TXA	22	1	Approving Physician Code
TXA		2	Date / Time Approved
TXA	23	N/A	Distributed Copied CC1PROVIDER ID, CC1PROVIDER NAME, CC2PROVIDER ID, etc. Up to 9.

### ADT Configurable Segments

- Marital Status
- Driver's License
- Email Address
- Fax Number
- Mobile Number
- Work Number
- Race
- Patient Miscellaneous 1
- Patient Miscellaneous 2
- Height
- Weight

### ORM Configurable Segments

- Visit Miscellaneous 1
- Visit Miscellaneous 2
- Modifier
- Branch Code
- Priority
- Reason for Test
- Patient Account Number
- Visit Comments
- Height
- Weight

## ORU Configurable Segments

- Dictated Date / Time
- Typed Date / Time
- Completed Date / Time
- Typist Code
- Reading Radiologist Code
- Approving Radiologist Code

## SIU Configurable Segments

- Room
- Reason
- Comments
- Scheduler ID
- Procedure Code Location

## PMU Configurable Segments

All of the following fields can be extracted and configured from any field within any segment from the PMU message.

- IdCode
- ActiveFlag
- MainType
- LastName
- FirstName
- Initial
- Title
- Dept
- Beeper
- FaxNumber
- OfficePhone
- OfficeAddress1
- OfficeAddress2
- OfficeCity
- OfficeState
- OfficeZip
- HomePhone

- HomeAddress1
- HomeAddress2
- HomeCity
- HomeState
- HomeZip
- PrimaryEmail
- SecondEmail
- ThirdEmail
- OfficePhoneExt
- MobilePhone
- OtherPhone
- BirthDate
- HireDate
- TerminationDate
- SocialSecurity

### **MDM Configurable Segments**

- Dictated Date / Time
- Typed Date / Time
- Completed Date / Time
- Typist Code
- Reading Radiologist Code
- Approving Radiologist Code

# HL7 Outbound Specs

## Program Description

This program creates outbound HL7 messages. HL7OUT will send ORM and ORU transactions.

The configuration file allows you to specify the location of key RISynergy fields such as PATIENT#, ALT-ID1, ALT-ID2, MISC 1, MISC2, etc. These fields can be sent in the HL7 transaction.

## Types of Messages

### ADT

**Admit (A04, A08, A40)** When a patient is created, updated or merged manually in our system. We will send out the corresponding message.

### DFT

Detailed Financial Transactions

### ORM

Order Messages

### ORU

Transcribed Result messages

### OSU

Order Status Update

### MDM

Medical Document Management

## Segment/Field Usage for ADT Messages

Segment	Field	Sub Field	Description
MRG	01	N/A	Prior Patient Identifier
PID	03	N/A	Medical Record Number
	05	1	Patient Last Name
		2	Patient First Name
		3	Patient Middle Initial

Segment	Field	Sub Field	Description
	07	N/A	Date of Birth (YYYYMMDD)
	08	N/A	Sex
	10	N/A	Race
	11	1	Address Line 1
		2	Address Line 2
		3	City
		4	State
		5	Zip
	13	N/A	Home Phone Number
	14	N/A	Work Phone Number
	15	N/A	Language
	16	N/A	Marital Status
	19	N/A	Social Security Number
	20	N/A	Driver's License
	29	N/A	Deceased Date
	33	N/A	Date Last Modified

## Segment/Field Usage for DFT Messages

Segment	Field	Sub Field	Description
<b>EVN</b>	01	N/A	Event Type Code
<b>FT1</b>	03	N/A	Visit ID
	04	N/A	Visit Date
	05	N/A	Visit Date and Time In
	06	N/A	Charge Credit Transaction Type
	07	N/A	Transaction Code
	08	N/A	Transaction Description
	09	N/A	Branch Code
	10	N/A	Transaction Quantity
	18	N/A	Visit Type
	19	N/A	Diagnosis Code
	20	N/A	Performed By Code
	21	N/A	Ordered By Code



Segment	Field	Sub Field	Description
	23	N/A	Order Number
	26	N/A	Procedure Modifier
<b>PID</b>	03	N/A	Medical Record Number
	05	1	Patient Last Name
		2	Patient First Name
		3	Patient Middle Initial
	07	N/A	Date of Birth (YYYYMMDD)
	08	N/A	Sex
	10	N/A	Race
	11	1	Address Line 1
		2	Address Line 2
		3	City
		4	State
		5	Zip
	13	N/A	Home Phone Number
	14	N/A	Work Phone Number
	15	N/A	Language
	16	N/A	Marital Status
	19	N/A	Social Security Number
	20	N/A	Driver's License
	29	N/A	Deceased Date
	33	N/A	Date Last Modified

## Segment/Field Usage for ORM Messages

Segment	Field	Sub Field	Description
<b>PID</b>	02	N/A	Configurable from the Patient or Visit Master
	03	N/A	Medical Record Number
	04	N/A	Alternate ID (Configurable)
	05	1	Patient Last Name
		2	Patient First Name

Segment	Field	Sub Field	Description
		3	Patient Middle Initial
	07	N/A	Date of Birth (YYYYMMDD)
	08	N/A	Sex
	11	1	Address Line 1
		2	Address Line 2
		3	City
		4	State
		5	Zip
	13	N/A	Home Phone Number
	14	N/A	Work Phone Number
	16	N/A	Work Phone Extension
	18	N/A	Account Number
	19	N/A	Social Security Number
<b>PV1</b>	02	N/A	E for ER, O for Outpatient, I for Inpatient
	03	2	Room Number
		3	Bed Number
	07	1	Attending Physician Code (Physician 1)
		2	Attending Physician Last Name
		3	Attending Physician First Name
		4	Attending Physician Middle Initial
	08	1	Referring Physician Code (Physician 3)
		2	Referring Physician Last Name
		3	Referring Physician First Name
		4	Referring Physician Middle Initial
	09	1	Consulting Physician Code (Physician 4)
		2	Consulting Physician Last Name
		3	Consulting Physician First Name
		4	Consulting Physician Middle Initial
	17	1	Admitting Physician Code (Physician 2)
		2	Admitting Physician Last Name
		3	Admitting Physician First Name
		4	Admitting Physician Middle Initial

Segment	Field	Sub Field	Description
	18	1	Visit Type
	38	N/A	Branch Code
<b>ORC</b>	01	N/A	Order Control ex: NW, CA
	02	1	HIS Order Number (Placer)
	03	1	RMS Order Number (Filler)
	05	N/A	Order Status (SC, CA, CM)
	06	N/A	Response Flag
	07	1	Quantity
		4	Visit Date Time (YYYYMMDDHHMM)
		6	Priority
	08	N/A	RISynergy Visit ID
	09	N/A	Visit Date and Time (YYYYMMDDHHMM)
	12	1	Attending Physician Code (Physician 1)
		2	Attending Physician Last Name
		3	Attending Physician First Name
		4	Attending Physician Middle Initial
	13	N/A	RISynergy Branch Code
	17	N/A	Configurable for RISynergy Misc #2
<b>OBR</b>	02	1	HIS Order Number (Placer)
	03	1	RMS Order Number (Filler)
	04	1	Procedure Code
		2	Procedure Description
	06	N/A	Visit Date and Time (YYYYMMDDHHMM)
	16	1	Attending Physician Code (Physician 1)
		2	Attending Physician Last Name
		3	Attending Physician First Name
		4	Attending Physician Middle Initial
	20	N/A	Department Code or Description (configurable)
	21	N/A	Resend Order Flag (Configurable RSND)
	24	N/A	Modality Code
	27	1	Quantity

Segment	Field	Sub Field	Description
		4	Visit Date Time (YYYYMMDDHHMM)
		6	Priority
	31	1	ICD-9 Code (Configurable to have Reason for Test)
		2	ICD-9 Description
	43	13	Reason for Test from RISynergy Visit

### ORM Configurable Segments

- Visit Miscellaneous 1
- Visit Miscellaneous 2
- Branch Code
- Reason for Test

### Segment/Field Usage for ORU messages

Segment	Field	Sub Field	Description
<b>PID</b>	02	N/A	Configurable from the Patient or Visit Master
	03	N/A	Medical Record Number
	04	N/A	Alternate Patient ID (Configurable)
	05	1	Patient Last Name
		2	Patient First Name
		3	Patient Middle Initial
	07	N/A	Date of Birth (YYYYMMDD)
	08	N/A	Sex
	18	N/A	Account Number
	19	N/A	Social Security Number

This PV1 Segment is configurable as to whether or not it is in the message

<b>PV1</b>	02	N/A	E for ER, O for Outpatient, I for Inpatient
	03	1	Visit Type
		3	Room Number
	07	1	Attending Physician Code (Physician 1)
		2	Attending Physician Last Name
		3	Attending Physician First Name
		4	Attending Physician Middle Initial

Segment	Field	Sub Field	Description
	08	1	Referring Physician Code (Physician 3)
		2	Referring Physician Last Name
		3	Referring Physician First Name
		4	Referring Physician Middle Initial
	09	1	Consulting Physician Code (Physician 4)
		2	Consulting Physician Last Name
		3	Consulting Physician First Name
		4	Consulting Physician Middle Initial
	17	1	Admitting Physician Code (Physician 2)
		2	Admitting Physician Last Name
		3	Admitting Physician First Name
		4	Admitting Physician Middle Initial
	18	1	Visit Type
	38	N/A	Branch Code
<b>ORC</b>	01	N/A	Order Control (RE)
	02	1	HIS Order Number (Placer)
	03	1	RMS Order Number (Filler)
	05	N/A	Order Status (SC, CA, CM)
	06	N/A	Response Flag
	08	N/A	RISynergy Visit ID
	13	N/A	RISynergy Branch Code
	17	N/A	Configurable for RISynergy Misc #2
<b>OBR</b>	02	1	HIS Order Number (Placer)
	03	1	RMS Order Number (Filler)
	04	1	Procedure Code
		2	Procedure Description
	06	N/A	Visit Date and Time (YYYYMMDDHHMM)
	07	N/A	Dictated Date and Time (YYYYMMDDHHMM)
	08	N/A	Typed Date and Time (YYYYMMDDHHMM)
	16	1	Attending Physician Code (Physician 1)
		2	Attending Physician Last Name

Segment	Field	Sub Field	Description
		3	Attending Physician First Name
		4	Attending Physician Middle Initial
	18	1	Alternate Procedure Code
		2	Modifier
	20	N/A	Department Code or Description (configurable)
	22	N/A	Completed Date and Time (YYYYMMDDHHMM)
	24	N/A	Modality Code or RAD (Configurable)
	25	N/A	Result Status
	32	1	Radiologist Code
		2	Radiologist Last Name
		3	Radiologist First Name
	35	N/A	Typist Code
Configurable to have multiple OBX or One OBX			
<b>OBX</b>	02	N/A	Value Type
	03	N/A	Observation Identifier (Configurable)
	05	N/A	Result Status Text (ex FINAL REPORT) Subsequent OBX5 will contain the text of the transcribed report
	11	N/A	Result Status