

---

# Hyland®

Image Link

HL7 Conformance Statement

DOC-IL-HL7CS-EN-RevA

Date: December 2020

# Copyright

Information in this document is subject to change without notice. The software described in this document is furnished only under a separate license agreement and may be used or copied only according to the terms of such agreement. It is against the law to copy the software except as specifically allowed in the license agreement. This document or accompanying materials contains certain information which is confidential information of Hyland Software, Inc. and its affiliates, and which is subject to the confidentiality provisions agreed to by you.

All data, names, and formats used in this document's examples are fictitious unless noted otherwise. Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright law, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Hyland Software, Inc. or one of its affiliates.

Hyland® and Hyland Software®, as well as Hyland product names, are registered and/or unregistered trademarks of Hyland Software, Inc. and its affiliates in the United States and other countries. All other trademarks, service marks, trade names and products of other companies are the property of their respective owners.

© 2020 Hyland Software, Inc. and its affiliates. All rights reserved.

## Revision History

Date	Revision	Authors	Description
30-OCT-2020	A	Abdul Khatri	First draft

## Table of Contents

<b>Copyright</b> .....	<b>2</b>
<b>Revision History</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>5</b>
Purpose and Intended Audience of this Document .....	5
Acronyms and Abbreviations .....	5
Related Documents .....	5
<b>Inbound Messages</b> .....	<b>5</b>
Supported Trigger Events .....	5
Supported Actions .....	5
Supported Events .....	6
ADT Field Mappings by Function .....	7
<i>Supported Segments</i> .....	7
Supported HL7 Fields .....	7
<i>ADT Message Mappings by Segment</i> .....	7
<i>SIU Message Mappings by Segment</i> .....	10
<i>ORM Message Mappings by Segment</i> .....	17

## Introduction

### Purpose and Intended Audience of this Document

This document is an HL7 Conformance Statement for the HL7 Services of PACSgear Image Link. It describes the HL7 messages supported by Image Link. The user of this document is involved with system integration and software design. We assume that the reader is familiar with the terminology and concepts that are used in HL7 2.3.1 and the IHE Technical Framework.

**Note** Although the use of this conformance statement in conjunction with the HL7 standard is intended to facilitate communication with Image Link it is not sufficient to guarantee, by itself, the inter-operation of the connection between a 3rd party HIS/RIS system and Image Link.

### Acronyms and Abbreviations

The following acronyms and abbreviations are used throughout this document.

- ADT – Admission, Discharged, and Transfer message
- SIU – Scheduling Information Unsolicited message
- ORM – Order Request
- EVN – Event Type segment
- HL7 – Health Level 7
- MRG – Merge Patient Information segment
- MSH – Message Header segment
- OBR – Observation Request segment
- OBX – Observation/Result segment
- ORC – Common Order segment

### Related Documents

Refer to the [Introduction to HL7 Standards](#) documentation for additional information on HL7 standards.

## Inbound Messages

### Supported Trigger Events

In Image Link all inbound HL7 message can trigger an action based on information within the HL7 Message. You can configure the trigger to either equal or contain values within a HL7 field, sub field.

### Supported Actions

Image Link is a background application intended to translate incoming HL7 data from EHR/RIS and provides DICOM Modality Worklist Management for improved workflow and data consistency.

Image Link consists of an HL7 engine that interprets messages from RIS, EHR, or other scheduling systems, a sophisticated mapping functions to translate between HL7 and DICOM, and a DICOM engine that interprets and replies to DICOM Modality Worklist requests.

The following functions are supported by Image Link:

- Translate HL7 messages into DICOM fields and values and add or update an entry to the DICOM Modality Worklist
- Translate HL7 messages into DICOM fields and update patient information in a DICOM modality worklist.

## Supported Events

Functional Area	Event Code	ADT Trigger Event	Image Link Action
ADT	A01	Patient Admit	Create/Update Exam and Patient records.
ADT	A04	Patient Registration	Create/Update Exam and Patient records.
ADT	A05	Patient Pre-Admit	Create/Update Exam and Patient records.
ADT	A08	Update Patient Info	Create/Update Exam and Patient records.
ADT	A10	Patient Arriving - Tracking	Create/Update Exam and Patient records.
ADT	A11	Cancel Admit/Visit	Remove Exam record from PACSgear.
ADT	A27	Cancel pending admit	Remove Exam record from PACSgear.
ADT	A31	Update person information	Update Patient and Exam records.
ADT	A32	Cancel patient arriving	Remove Exam record from PACSgear.
ADT	A38	Cancel pre-admit	Remove Exam record from PACSgear.
SIU	S12	Notification of new appointment booking	Create/Update Exam and Patient records.
SIU	S13	Notification of appointment rescheduling	Create/Update Exam and Patient records.
SIU	S14	Notification of appointment modification	Create/Update Exam and Patient records.
SIU	S15	Notification of appointment cancellation	Remove Exam record from PACSgear.
SIU	S17	Notification of appointment deletion	Remove Exam record from PACSgear.

SIU	S26	Notification that patient did not show up for scheduled appointment	Remove Exam record from PACSgear.
ORM	O01	General Order Message	Create/Update Exam and Patient records.

## ADT Field Mappings by Function

### Supported Segments

You can map any field in any segment provided in an ADT, SIU, or ORM message to a corresponding DICOM tag and store it in the image archive. It is important to determine which data you want harvested and stored along with the image data, and what are the most appropriate mapping.

In addition, you can use information in the HL7 message to substitute or replace data based on lookup tables created withing Image Link

### Supported HL7 Fields

The following table shows the default configuration for Image Link.

### ADT Message Mappings by Segment

#### MSH – Message Header

Field	Description	PACSgear Data or Static Value	Comment or Static Data Sent
1	Field Separator		
2	Encoding Characters	^~\&	Component Separator: ^ (caret) Sub-Component Separator: & (ampersand) Repetition Separator: ~ (tilde) Escape Character: \ (back slash)
3	Sending Application		
4	Sending Facility		
5	Receiving Application		
6	Receiving Facility		
7	Date/Time of Message		The time the message was generated. Format: YYYYMMDDHHMMSS
8	Security		
9	Message Type		Format: <Message type>^<Trigger event>

10	Message Control ID		The time the message was generated. Format: YYYYMMDDHHMMSS
11	Processing ID	P	This will be P for Production and T for all non-production environments
12	Version ID	2.3	HL7 version number, e.g. 2.3

\* Values in red indicate required data.

### EVN – Event Type

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Event Type Code		
2	Date/Time of Event	Procedure Date/Time	
3	Date/Time Planned Event		
4	Event Reason Code		
5	Operator ID		
6	Event Occurred		

\* Values in red indicate required data.

### PID – Patient Identification

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Set ID	Not used	
2	Patient ID	Not used	
3	Internal Patient ID	MRN	
4	Alternate Patient ID	Not used	
5.1	Patient Name - Last	Patient Last Name	
5.2	Patient Name - First	Patient First Name	
5.3	Patient Name - Middle Initial	Patient Middle Name	
6	Mother's Maiden Name	Not used	
7	Date of Birth	Patient DOB	Format: YYYYMMDD



8	Sex	Patient Gender	
9	Patient Alias	Not used	
10	Race	Not used	
11.1	Patient Address Line 1	Not used	
11.2	Patient Address Line 2	Not used	
11.3	Patient City	Not used	
11.4	Patient State	Not used	
11.5	Patient Zip	Not used	
12	Country Code	Not used	
13	Phone Number - Home	Not used	
14	Phone Number - Business	Not used	
15	Primary Language	Not used	
16	Marital Status	Not used	
17	Religion	Not used	
18	Patient Account Number	Accession Number	CSN, Account Number, FIN depending on your environment
19	Social Security Number	Not used	

\* Values in red indicate required data.

### PV1 – Patient Visit

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Set ID	Not used	
2	Patient Class	Not used	
3	Patient Location	Visit Location	
4	Admission Type	Not used	
5	Pre-Admit Number	Not used	
6	Prior Patient Location	Not used	

7.1	Attending ID	Not used	
7.2	Attending Last Name	Not used	
7.3	Attending First Name	Not used	
8.1	Referring Doctor ID	Not used	
8.2	Referring Doctor Last Name	Not used	
8.3	Referring Doctor First Name	Not used	
9	Consulting Doctor	Not used	
10	Hospital Service	Not used	
11	Temporary Location	Not used	
12	Pre-Admit Test Indicator	Not used	
13	Re-Admission Indicator	Not used	
14	Admit Source	Not used	
15	Ambulatory Status	Not used	
16	VIP Indicator	Not used	
17.1	Admitting ID	Not used	
17.2	Admitting Last Name	Not used	
17.3	Admitting First Name	Not used	
18	Patient Type	Not used	
19	Visit #	Not used	
20-43	Misc	Not used	
44	Admit Date/Time	Not used	

\* Values in red indicate required data.

## SIU Message Mappings by Segment

### MSH – Message Header

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
-------	-------------	-------------------------------	-----------------------------

1	Field Separator		
2	Encoding Characters	^~\&	Component Separator: ^ (caret) Sub-Component Separator: & (ampersand) Repetition Separator: ~ (tilde) Escape Character: \ (back slash)
3	Sending Application		
4	Sending Facility		
5	Receiving Application		
6	Receiving Facility		
7	Date/Time of Message		The time the message was generated. Format: YYYYMMDDHHMMSS
8	Security		
9	Message Type		Format: <Message type>^<Trigger event>
10	Message Control ID		
11	Processing ID	P	This will be P for Production and T for all non-production environments
12	Version ID	2.3	HL7 version number, e.g. 2.3

\* Values in red indicate required data.

### SCH – Schedule Activity Information

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Placer Appointment ID	Not used	
2	Filler Appointment ID	Not used	
3	Occurrence Number	Not used	
4	Placer Group Number	Not used	
5	Schedule ID	Not used	
6	Event Reason	Not used	
7	Appointment Reason	Not used	
8	Appointment Type	Not used	

9	Appointment Duration	Not used	
10	Appointment Duration Units	Not used	
11.4	Appointment Timing Quantity	Scheduled Start Date and Time	Format: YYYYMMDDHHMMSS
12	Placer Contact Person	Not used	
13	Placer Contact Phone Number	Not used	
14	Placer Contact Address	Not used	
15	Placer Contact Location	Not used	
16	Filler Contact Person	Not used	
17	Filler Contact Phone Number	Not used	
18	Filler Contact Address	Not used	
19	Filler Contact Location	Not used	
20	Entered By Person	Not used	
21	Entered By Phone Number	Not used	
22	Entered By Location	Not used	
23	Parent Placer Appointment ID	Not used	
24	Parent Filler Appointment ID	Not used	
25	Filler Status Code	Not used	

\* Values in red indicate required data.

### PID – Patient Information

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Set ID	Not used	
2	Patient ID	Not used	
3	Internal Patient ID	MRN	

4	Alternate Patient ID	Not used	
5.1	Patient Name - Last	Patient Last Name	
5.2	Patient Name - First	Patient First Name	
5.3	Patient Name - Middle Initial	Patient Middle Name	
6	Mother's Maiden Name	Not used	
7	Date of Birth	Patient Date of Birth	Format: YYYYMMDD
8	Sex	Patient Gender	
9	Patient Alias	Not used	
10	Race	Not used	
11.1	Patient Address Line 1	Not used	
11.2	Patient Address Line 2	Not used	
11.3	Patient City	Not used	
11.4	Patient State	Not used	
11.5	Patient Zip	Not used	
12	Country Code	Not used	
13	Phone Number - Home	Not used	
14	Phone Number - Business	Not used	
15	Primary Language	Not used	
16	Marital Status	Not used	
17	Religion	Not used	
18	Patient Account Number	Accession Number	This is simply a procedure identifier. This can be Accession number or Encounter number or FIN depending on your environment and indexing preferences.
19	Social Security Number		

\* Values in red indicate required data.

## ORC – Order Common Information

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Order Control	Cancellation Flag	If ORC-1 = CA the message will be processed as a cancellation
2-19		Not used	

\* Values in red indicate required data.

## PV1 – Patient Visit

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Set ID	Not used	
2	Patient Class	Not used	
3	Patient Location	Not used	
4	Admission Type	Not used	
5	Pre-Admit Number	Not used	
6	Prior Patient Location	Not used	
7.1	Attending ID	Not used	
7.2	Attending Last Name	Not used	
7.3	Attending First Name	Not used	
8.1	Referring Doctor ID	Not used	
8.2	Referring Doctor Last Name	Not used	
8.3	Referring Doctor First Name	Not used	
9	Consulting Doctor	Not used	
10	Hospital Service	Not used	
11	Temporary Location	Not used	
12	Pre-Admit Test Indicator	Not used	
13	Re-Admission Indicator	Not used	
14	Admit Source	Not used	

15	Ambulatory Status	Not used	
16	VIP Indicator	Not used	
17.1	Admitting ID	Not used	
17.2	Admitting Last Name	Not used	
17.3	Admitting First Name	Not used	
18	Patient Type	Not used	
19	Visit #	Not used	
20-43	Misc	Not used	
44	Admit Date/Time	Not used	

\* Values in red indicate required data.

### OBR – Observation Request

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
2.1	Placer Order Number	Accession Number	
4.1	Universal Service Identifier Code	Procedure Code	
4.2	Universal Service Identifier Description	Procedure Description	

\* Values in red indicate required data.

### PD1 – Patient Demographic Information

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1-3		Not used	
4.1	Patient Primary Care Provider ID	Exam.PCP_ID	
4.2	Patient Primary Care Provider Last Name	Exam.PCP_LN	
4.3	Patient Primary Care Provider First Name	Exam.PCP_FN	
4.4	Patient Primary Care Provider Middle Name	Exam.PCP_MN	

5-12		Not used	
------	--	----------	--

\* Values in red indicate required data.

### MRG – Merge Information (Only sent with merge messages)

Field	Description	PACSgear Data or Static Value	Comment or Static Data Sent
1.1	Prior Patient ID	Prior MRN	

\* Values in red indicate required data.

### RGS – Resource Group

Field	Description	PACSgear Data or Static Value	Comment or Static Data Sent
1	Set ID	Not used	
2	Segment Action Code	Not used	
3	Resource Group ID	Not used	

\* Values in red indicate required data.

### AIS – Appointment Information Service

Field	Description	PACSgear Data or Static Value	Comment or Static Data Sent
1	Set ID - AIS	Not used	
2	Segment Action Code	Not used	
3	Universal Service Identifier	Scheduled Procedure Description	
4	Start Date/Time	Not used	
5	Start Date/Time Offset	Not used	
6	Start Date/Time Offset Units	Not used	
7	Duration	Not used	
8	Duration Units	Not used	
9	Allow Substitution Code	Not used	
10	Filler Status Code	Not used	



11	Placer Supplemental Service Information	Not used	
12	Filler Supplemental Service Information	Not used	

\* Values in red indicate required data.

### AIL – Appointment Information – Location Resource

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Set ID - AIP	Not used	
2	Segment Action Code	Not used	
3	Personnel Resource ID	Not used	
4	Resource Type	Not used	
5	Resource Group	Not used	
6	Start Date/Time	Not used	
7	Start Date/Time Offset	Not used	
8	Start Date/Time Offset Unit	Not used	
9	Duration	Not used	
10	Duration Units	Not used	
11	Allow Substitution Code	Not used	
12		Not used	

\* Values in red indicate required data.

### ORM Message Mappings by Segment

#### MSH – Message Header

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Field Separator		
2	Encoding Characters	^~\&	Component Separator: ^ (caret) Sub-Component Separator: & (ampersand)

			Repetition Separator: ~ (tilde) Escape Character: \ (back slash)
3	Sending Application		
4	Sending Facility		
5	Receiving Application		
6	Receiving Facility		
7	Date/Time of Message		The time the message was generated. Format: YYYYMMDDHHMMSS
8	Security		
9	Message Type		Format: <Message type>^<Trigger event>
10	Message Control ID		The time the message was generated. Format: YYYYMMDDHHMMSS
11	Processing ID	P	This will be P for Production and T for all non-production environments
12	Version ID	2.3	HL7 version number, e.g. 2.3

\* Values in red indicate required data.

### PID – Patient Information

Field	Description	PACSGear Data or Static Value	Comment/Static Data Sent
1	Set ID	Not used	
2	Patient ID	Not used	
3	Internal Patient ID	MRN	
4	Alternate Patient ID	Not used	
5.1	Patient Name - Last	Patient Last Name	
5.2	Patient Name - First	Patient First Name	
5.3	Patient Name - Middle Initial	Patient Middle Name	
6	Mother's Maiden Name	Not used	
7	Date of Birth	Patient DOB	Format: YYYYMMDD
8	Sex	Patient Gender	

9	Patient Alias	Not used	
10	Race	Not used	
11.1	Patient Address Line 1	Not used	
11.2	Patient Address Line 2	Not used	
11.3	Patient City	Not used	
11.4	Patient State	Not used	
11.5	Patient Zip	Not used	
12	Country Code	Not used	
13	Phone Number - Home	Not used	
14	Phone Number - Business	Not used	
15	Primary Language	Not used	
16	Marital Status	Not used	
17	Religion	Not used	
18	Patient Account Number		CSN, Account Number - Depending on how you want to associate the images this may be used as the accession number within PACSgear.
19	Social Security Number	Not used	

\* Values in red indicate required data.

## ORC – Order Confirmation Information

Field	Description	PACSgear Data or Static Value	Comment or Static Data Sent
1	Order Control	Procedure Status	This Status can be used to control when a study appear on the worklist. I.E. if it has a status of NW it appears, CA does not, and if a Completed status is provided that can remove patients already seen from the worklist.
19-Feb		Not used	

\* Values in red indicate required data.

## PV1 – Patient Visit

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Set ID	Not used	
2	Patient Class	Not used	
3	Patient Location	Visit Location	This value is used to create multiple worklists so that patients only appear on the worklist for the location where their procedure is being performed.
4	Admission Type	Not used	
5	Pre-Admit Number	Not used	
6	Prior Patient Location	Not used	
7.1	Attending ID	Not used	
7.2	Attending Last Name	Not used	
7.3	Attending First Name	Not used	
8.1	Referring Doctor ID	Not used	
8.2	Referring Doctor Last Name	Not used	
8.3	Referring Doctor First Name	Not used	
9	Consulting Doctor	Not used	
10	Hospital Service	Not used	
11	Temporary Location	Not used	
12	Pre-Admit Test Indicator	Not used	
13	Re-Admission Indicator	Not used	
14	Admit Source	Not used	
15	Ambulatory Status	Not used	
16	VIP Indicator	Not used	
17.1	Admitting ID	Not used	
17.2	Admitting Last Name	Not used	

17.3	Admitting First Name	Not used	
18	Patient Type	Not used	
19	Visit #	Not used	
20-43	Misc	Not used	
44	Admit Date/Time	Not used	

\* Values in red indicate required data.

### OBR – Observation Request

Field	Description	PACSGear Data or Static Value	Comment or Static Data Sent
1	Set ID	1	
2.1	Placer Order Number	Not used	
3.1	Filler Order Number	Accession Number	Exam Unique Identifier
4.1	Universal Service Identifier Code	Procedure Code	CPT
4.2	Universal Service Identifier Description	Procedure Description	Study Description
5	Priority	Not used	
6	Requested Date/Time	Not used	
7	Observation Date/Time	Not used	
8	Observation End Date/Time	Not used	
9	Collection Volume	Not used	
10	Collector Identifier	Not used	
11	Specimen Action Code	Not used	
12	Danger Code	Not used	
13	Relevant Clinical Info.	Not used	
14	Specimen Received Date/Time	Not used	
15	Specimen Source	Not used	

16.1	Ordering Provider ID	Referring Physician ID	
16.2	Ordering Provider Last Name	Referring Physician Last Name	
16.3	Ordering Provider First Name	Referring Physician First Name	
17	Order Callback Phone Number	Not used	
18	Placer Field 1	Not used	
19	Placer Field 2	Not used	
20	Filler Field 1	Not used	
21	Filler Field 2	Not used	
22	Results Rpt/Status Chng - Date/Time	Not used	
23	Charge To Practice	Not used	
24	Diagnostic Serv Sect ID	Not used	
25	Result Status	Not used	
26	Parent Result	Not used	
27	Quantity/Timing	Not used	
28	Result Copies To	Not used	
29	Parent Number	Not used	
30	Transportation Mode	Not used	
31	Reason For Study	Not used	
32.1	Principal Result Interpreter ID	Interpreting Physician ID	
32.2	Principal Result Interpreter Last Name	Interpreting Physician Last Name	
32.3	Principal Result Interpreter First Name	Interpreting Physician First Name	
33	Assistant Result Interpreter	Not used	
34	Technician	Not used	

35	Transcriptionist	Not used	
36	Scheduled Date/Time	Exam Date/Time	Format: YYYYMMDD HH:MM:SS
37	Number Of Sample Containers	Not used	
38	Transport Logistics Of Collected Sample	Not used	
39	Collector's Comment	Not used	
40	Transport Arrangement Responsibility	Not used	
41	Transport Arranged	Not used	
42	Escort Required	Not used	
43	Planned Patient Transport Comment	Not used	