



MedSemantix™-es  
Enterprise Synchronization

HL7 CONFORMANCE STATEMENT

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# 1 Introduction

## 1.1 Revision Record

Revision Number	Date	Reason for Change
1.0	03/07/2007	Initial Version
1.0	03/22/2007	Formatting and Cleanup

## 1.2 Purpose and Intended Audience of this Document

This document is an HL7 Conformance Statement for the HL7 Services of MedSemantix™-es. It describes the HL7 messages supported by MedSemantix™-es.

The user of this document is involved with system integration and/or 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.

Although the use of this conformance statement in conjunction with the HL7 standard is intended to facilitate communication with MedSemantix™-es, it is not sufficient to guarantee, by itself, the inter-operation of the connection between a 3<sup>rd</sup> party HIS/RIS system and MedSemantix™-es /AcuoMed.

## 1.3 Acronyms and Abbreviations

ADT - Admission, Discharge, and Transfer message  
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  
ORM - Order Request message

## 1.4 Related Documents

HL7 Standard

## 2 Inbound Messages

### 2.1 Supported Trigger Events

In MedSemantix™-es all events are configurable to perform any activity for which the necessary data fields are present. Below are listed the actions for the most likely configuration. Some actions, like canceling batch moves on a transfer, may not be available based on the configuration of the RIS and the associated instance of AcuoMed.

#### 2.1.2 Supported Actions

The primary purpose of MedSemantix™-es is to keep the image archive up to date on patient demographics. It also has the ability to assist in work flow related functions and report storage.

The following functions are supported by MedSemantix™-es:

- ❖ Patient demographics update
- ❖ Procedure update
- ❖ Schedule pre-fetch
- ❖ Cancel batched pre-fetch
- ❖ Store report document

#### 2.1.2 Supported Events

Functional Area	Event Code	ADT Trigger Event	Actions Taken
ADT	A01	Admit a patient	PDU, PFI
ADT	A02	Patient transfer	*
ADT	A03	Discharge a patient	*
ADT	A04	Register a patient	
ADT	A05	Preadmit a patient.	*
ADT	A06	Transfer to inpatient	*
ADT	A07	Transfer to outpatient	*
ADT	A08	Update patient information.	PDU
ADT	A09	Patient departing	*
ADT	A10	Patient arriving	*
ADT	A11	Cancel Admit	CPF
ADT	A12	Cancel transfer	CPF
ADT	A13	Cancel Discharge	*
ADT	A17	Swap Patients	PDU
ADT	A18	Merge Patient Information	PDU

ADT	A28	Add person information	PDU
ADT	A30	Merge person information	PDU
ADT	A31	Update person information.	PDU
ADT	A34	Merge patient. ID only.	PDU
ADT	A36	Merge patient. Account number and ID.	PDU
ADT	A39	Merge patient using external ID.	PDU
ADT	A40	Merge patient using internal ID.	PDU
ORM	O01	General Order Msg	PFI/PDU
ORU	R01	Unsolicited transmission of Observation/Report.	SRD

❖ PDU Patient Demographics Update, PVU Procedure Update, SRD store report document, PFI Pre fetch images, CPF cancel batched pre-fetch.

\* Any incoming message may be scraped for demographic data. This is not the recommended configuration, but may be useful in some HL7 interface environments.

## 2.2 ADT Field Mappings by function

### 2.2.1 Supported Segments

Any field in any segment provided in an ADT message can be mapped to a corresponding DICOM tag and stored in the image archive. It is important to determine which data should be harvested and stored along with the image data, and what the most appropriate mapping would be.

### 2.2.2 Patient Demographic Update

MSH  
[ EVN ]  
PID  
PV1  
[ MRG ]

### 2.2.3 Pre-Fetch Images

MSH  
[ EVN ]  
PID  
PV1  
ORC  
OBR

### 2.2.4 Store Report Document (ORU)

MSH  
PID

```
[ PV1 ]
{
    [ORC ]
    OBR
    [ NTE ] / Z-Segment
    {
        [OBX]
        Z-Segment
    }
}
```

## 2.1 Supported HL7 Fields

Standard mappings listed below. Alternate mappings are configurable.

### 2.1.1 MSH Segment Mappings

Seq	HL7 Field Name	Required by HL7	AcuoMed Default Mapped Field.	Comments
1	Field Separator	Yes	Yes	
2	Encoding Characters	Yes	Yes	
4	Sending Facility	No	Yes	Required for Pre-fetch in a multi source environment.
6	Receiving Facility	No	Yes	Required for Pre-fetch in a multi source environment.
7	Date/Time of Msg	No	Yes	
9	Message Type	Yes	Yes	
10	Message Control ID	Yes	No	
11	Processing ID	Yes	No	
12	Version ID	Yes	Yes	
18	Character Set	No	Yes	

## 2.1.2 PID Segments Mappings

Seq	HL7 Field Name	HI7 Req	AcuoMed Default Mapped Field.	Comments
1	Set ID - Patient ID	No	No	
2	Patient ID (External ID)	No	No	May be used in place of PID-3
3	Patient ID (Internal ID)	Yes	Yes	Not req. if alternate used.
4	Alternate Patient ID	No	No	May be used in place of PID-3
5	Patient Name	Yes	Yes	
6	Mother?s Maiden Name	No	No	
7	Date of Birth	No	Yes	
8	Sex	No	Yes	
9	Patient Alias	No	No	
10	Race	No	No	
11	Patient Address	No	No	
12	Country Code	No	No	
13	Phone Number - Home	No	No	
14	Phone Number - Business	No	No	
15	Primary Language	No	No	
16	Marital Status	No	No	
17	Religion	No	No	
18	Patient Account Number	No	Not Supported	
19	SSN Number - Patient	No	No	
20	Driver?s Lic Num - Patient	No	No	
21	Mother?s Identifier	No	No	
22	Ethnic Group	No	No	
23	Birth Place	No	No	
24	Multiple Birth Indicator	No	No	
25	Birth Order	No	No	
26	Citizenship	No	No	
27	Veterans Military Status	No	No	
28	Nationality	No	No	
29	Patient Death Date/Time	No	No	
30	Patient Death Indicator	No	No	

### 2.1.3 PV1 Segment Mappings

Seq	HL7 Field Name	HL7 Req.	MedSemantix Default Config	Comment
2	Patient Class	Yes	No	
3	Assigned Patient Location	NO	Pre-Fetch	Used for pre-fetch to determine procedure type. Alternate mappings are often used.
4	Admission Type	NO	NO	
5	Pre-admit Number	NO	NO	
6	Prior Patient Location	NO	NO	
7	Attending Doctor	NO	NO	Might be used for pre-fetch granularity.
8	Referring Doctor	NO	NO	
9	Consulting Doctor	NO	NO	
10	Hospital Service	NO	NO	
11	Temporary Location	NO	NO	
12	Pre-admit Test Indicator	NO	NO	
13	Readmission Indicator	NO	NO	
14	Admit Source	NO	NO	
15	Ambulatory Status	NO	NO	
16	VIP Indicator	NO	NO	
17	Admitting Doctor	NO	NO	
18	Patient Type	NO	NO	
19	Visit Number	Yes	NO	
20	Financial Class Eff.Date	NO	NO	
21	Charge Price Indicator	NO	NO	
22	Courtesy Code	NO	NO	
23	Credit Rating	NO	NO	
24	Contract Code	NO	NO	
25	Contract Effective Date	NO	NO	
26	Contract Amount	NO	NO	
27	Contract Period	NO	NO	
28	Interest Code	NO	NO	
29	Transfer to Bad Debt Code	NO	NO	
30	Transfer to Bad Debt Date	NO	NO	
31	Bad Debt Agency Code	NO	NO	
32	Bad Debt Transfer Amount	NO	NO	
33	Bad Debt Recovery Amt	NO	NO	
34	Delete Account Indicator	NO	NO	
35	Delete Account Date	NO	NO	
36	Discharge Disposition	NO	NO	
37	Discharged to Location	NO	NO	
38	Diet Type	NO	NO	

39	Servicing Facility	NO	NO	
40	Bed Status	NO	NO	
41	Account Status	NO	NO	

### 2.1.4 MRG Segment Mappings

Seq	HL7 Field Name	HI7 Req	AcuoMed Default Mapped Field.	Comments
1	Prior Patient ID - Internal	Yes	Yes	Unless an alternate is provided
2	Prior Alternate Patient ID	No	No	May be used in place of MRG 1
3	Prior Patient Acct Number	No	Not supported	
4	Prior Patient ID -External	No	No	May be used in place of MRG 1
5	Prior Visit Number	No	No	
6	Prior Alternate Visit ID	No	No	
7	Prior Patient Name	No	No	

### 2.1.5 ORC Segment Mappings

Seq	HL7 Field Name	HI7 Req	AcuoMed Default Mapped Field.	Comments
1	Order Control	Yes	No	
2	Placer Order #	Yes	No	
3	Filler Order #	Yes	No	
4	Placer Group #	No	No	
5	Order Status	Yes	No	
6	Response Flag	No	No	
7	Quantity/Timing	No	No	
8	Parent	No	No	
9	Date/Time of Transaction	No	Yes	
10	Entered By	No	No	
11	Verified By	No	No	
12	Ordering Provider	No	No	
13	Enterer?s Location	No	No	
14	Call Back Phone Number	No	No	
15	Order Effective Date/Time	No	Yes	
16	Order Control Reason	No	No	
17	Entering Organization	No	No	
18	Entering Device	No	No	
19	Action By	No	No	

## 2.1.6 OBR Segment Mappings

Seq	HL7 Field Name	HI7 Req	AcuoMed Default Mapped Field.	Comments
1	Set ID - Observation Request	No	No	
2	Placer Order #	Yes	No	
3	Filler Order #	Yes	Yes	
4	Universal Service ID	Yes	Yes	
5	Priority	No	Yes	
6	Requested Date/Time	No	Yes	
7	Observation Date/Time	No	No	
8	Observation End Date/Time	No	No	
9	Collection Volume	No	No	
10	Collector Identifier	No	No	
11	Specimen Action Code	No	No	
12	Danger Code	No	Yes	
13	Relevant Clinical Inf.	No	Yes	
14	Specimen Rec'd Date/Time	No	No	
15	Specimen Source	No	No	
16	Ordering Provider family	No	Yes	
17	Order Callback Phone No	No	No	
18	Placer Field 1	No	Yes	
19	Placer Field 2	No	Yes	
20	Filler Field 1	No	Yes	
21	Filler Field 2	No	No	
22	Result Rpt/Status Change - Date/Time	No	Yes	
23	Charge To Practice	No	No	
24	Diag Nostic Serv Sect Id	No	Yes	
25	Result Status	No	Yes	
26	Parent Result	No	No	
27	Quantity/Timing	No	Yes	
28	Result Copies To	No	No	
29	Parent Number	No	No	
30	Transportation Mode	No	Yes	
31	Reason For Study	No	Yes	

## 2.1.7 OBX Segment Mappings

Seq	HL7 Field Name	HL7 Req	AcuoMed Default Mapped Field.	Comments
1	Set ID	No	No	
2	Value Type	No	No	
3	Observation identifier	No	Yes	
4	Observation Sub-ID	No	No	
5	Observation Value	No	Yes	All OBX 5 fields are combined into one field delimited by CR LF to create a paragraph result.
6	Units	No	No	
7	References Range	No	No	
8	Abnormal Flags	No	No	
9	Probability	No	No	
10	Nature of Abnormal Test	No	No	
11	Observation Result Status	No	Yes	
12	Date Last Obs Normal Values	No	No	
13	User Defined Access Checks	No	No	
14	Date/Time of the Observation	No	Yes	
15	Producer's ID	No	No	
16	Responsible Observer	No	No	
17	Observation Method	No	No	