

HL7 Conformance Profile

(R)IS INBOUND ORU REP R01 3RD PARY REPORTING SYSTEMS

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About this Conformance Profile

HL7Server_TT - Release 2005.3.1 - Conformance profile ORU inbound from 3rd party reporting systems. (e.g. Talkstation, Dictaphone, G2Speech, MRS)

History:

2007-10-24 - Creation - Nico Vannieuwenhuyze

Remarks:

When messages are received via HL7 MLLP (socket) HL7Server_TT processes the message before sending an acknowledgement message.

For certain events this can take a few seconds, so please configure the sending application to wait eg 180 seconds for an acknowledgment.

For more information on HL7 conformance profiles please consult HL7 ANSI standard chapter 2 and HL7 Implementation/Conformance Technical Committee documents at <http://www.hl7.org/special/committees/ictc/docs.cfm>

Conformance parameters

Message Profile

- HL7 Version: 2.4
- Profile Type: Constraining
- Topics: confsig-AGFA-2.4-profile-accNE_accNE-Immediate

Encoding Method

ER7

Interaction 1

Dynamic Definition

- Accept Acknowledgement: NE
- Application Acknowledgement: NE
- Acknowledgement Mode: Immediate

Static Definition

- Event Description: ORU/ACK - Unsolicited transmission of an observation message
- Message Type: ORU
- Trigger Event: R01
- Message Structure: ORU_R01
- Topics: confsig-AGFA-2.4-static-ORU-R01-null-ORU_R01-2005.3.4--Receiver

Message structure

MSH [[PID { [PD1] } { [NK1] } { [NTE] } [[PV1] { [PV2] }] } { [ORC] OBR { [NTE] } { [DG1] } { [CTD] } { [OBX] { [NTE] } } { [FT1] } { [CT1] } }] { [DSC] }

MSH - Message Header

- Usage: Required
- Cardinality:1..1

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Field Separator	ST		1	R	1..1	e.g.
2	Encoding Characters	ST		4	R	1..1	e.g. ^~\&
3	Sending Application	HD		227	R	1..1	
3.1	namespace ID	IS		50	R	..	e.g. HIS1
4	Sending Facility	HD		227	O	0..1	
4.1	namespace ID	IS		50	O	..	e.g. FAC1
7	Date/Time Of Message	TS		26	R	1..1	
7.1	Date/Time	NM		24	R	..	e.g. 20060125163934110
9	Message Type	CM_MSG	HL70076	15	R	1..1	
9.1	message type	ID	HL70076	3	R	..	e.g. ORU
9.2	trigger event	ID	HL70003	3	R	..	e.g. R01
9.3	message structure	ID	HL70354	7	O	..	e.g. ORU_R01
10	Message Control ID	ST		20	R	1..1	e.g. UC01_TR02A_003320
11	Processing ID	PT		3	R	1..1	
11.1	processing ID	ID	HL70103	3	R	..	e.g. P
12	Version ID	VID	HL70104	973	R	1..1	
12.1	version ID	ID	HL70104	60	R	..	e.g. 2.4
18	Character Set	ID	HL70211	16	O	0..*	e.g. 8859/1

1. Field Separator

This field contains the separator between the segment ID and the first real field, MSH-2-encoding characters. As such it serves as the separator and defines the character to be used as a separator for the rest of the message.

Recommended value and used by Agfa is |, (ASCII 124).



2. Encoding Characters

This field contains the four characters in the following order: the component separator, repetition separator, escape character, and subcomponent separator.

Recommended values and used by Agfa Healthcare are ^~\&, (ASCII 94, 126, 92, and 38).

3. Sending Application

This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise.

Entirely site-defined and a parameter for Agfa.

7. Date/Time Of Message

This field contains the date/time that the sending system created the message.

If the time zone is specified, it is expected to be the local time zone !

9.3. message structure

Only used/required when the message is hl7 v2.xml encoded

10. Message Control ID

This field contains a number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the Message acknowledgment segment (MSA).

11.1. processing ID

No difference in processing by HL7SERVER5 if Production or Test

12.1. version ID

Versions supported by HL7SERVER5 are 2.2, 2.3, 2.3.1, 2.4

18. Character Set

Character set has to be a subset of the Windows ANSI codepage of the pc where HL7SERVER5 is running !

e.g. ISO 8859/1 on a windows 1252 code page UTF-8 is not supported !

Segment group: PATIENT RESULT

- Usage: Required but may be empty

- Cardinality: 0..1

Segment group: PATIENT

- Usage: Required but may be empty

- Cardinality: 0..1

PID - Patient identification

- Usage: Required

- Cardinality: 1..1

- Implementation note: If the patient doesn't exist yet in the Agfa db the patient record is created. If the patient already exists his/her data is NOT updated.

Only one PID segment is allowed in an ORU message.

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
3	Patient Identifier List	CX		1913	R	1..*	
3.1	ID	ST		20	R	..	e.g. 1234567
3.2	Check digit	ST		200	O	..	e.g. 4
3.3	code identifying the check digit scheme employed	ID	HL70061	200	O	..	e.g. M11

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
3.4	assigning authority	HD		603	O	..	
3.4.1	namespace ID	IS		200	O	..	e.g. HIS1
3.4.2	universal ID	ST		200	O	..	
3.4.3	universal ID type	ID		200	O	..	
3.5	identifier type code (ID)	ID	HL70203	200	O	..	e.g. MR
3.6	assigning facility	HD		603	O	..	
3.6.1	namespace ID	IS		200	O	..	e.g. FACILITY1
3.6.2	universal ID	ST		200	O	..	
3.6.3	universal ID type	ID		200	O	..	
3.7	effective date (DT)	DT		24	O	..	e.g. 20051107
3.8	expiration date	DT		24	O	..	
4	Alternate Patient ID - PID	CX		1913	O	0..1	
4.1	ID	ST		20	O	..	e.g. 1234567
5	Patient Name	XPN		1103	R	1..1	
5.1	family name	FN		174	O	..	
5.1.1	surname	ST		30	R	..	e.g. Yarmey
5.2	given name	ST		30	O	..	e.g. Jane
5.3	second and further given names or initials thereof	ST		30	O	..	e.g. C
5.4	suffix (e.g., JR or III)	ST		15	O	..	
5.5	prefix (e.g., DR)	ST		100	O	..	e.g. DR.
6	Mother's Maiden Name	XPN		1103	O	0..1	
6.1	family name	FN		174	O	..	
6.1.1	surname	ST		30	O	..	
7	Date/Time Of Birth	TS		26	O	0..1	
7.1	Date/Time	NM		24	R	..	e.g. 19931022
8	Administrative Sex	IS	HL70001	1	O	0..1	e.g. F
10	Race	CE	HL70005	483	O	0..1	
10.1	identifier	ST		40	O	..	e.g. 2106-3
11	Patient Address	XAD		631	O	0..*	
11.1	street address (SAD)	SAD		318	O	..	
11.1.1	street or mailing address	ST		254	O	..	e.g. Kortrijksesteenweg
11.2	other designation	ST		20	O	..	e.g. 254
11.3	city	ST		30	O	..	e.g. Sint Martens Latem
11.4	state or province	ST		20	O	..	e.g. OVL
11.5	zip or postal code	ST		20	O	..	e.g. 9831
11.6	country	ID		20	O	..	e.g. BEL
11.7	address type	ID	HL70190	10	O	..	e.g. P
13	Phone Number - Home	XTN		850	O	0..1	
13.1	[(999)] 999-9999 [X99999][C any text]	TN		15	O	..	
13.5	Country Code	NM		15	O	..	e.g. 32
13.6	Area/city code	NM		15	O	..	e.g. 3

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
13.7	Phone number	NM		15	O	..	e.g. 4448150
13.8	Extension	NM		15	O	..	e.g. 500
14	Phone Number - Business	XTN		850	O	0..1	
14.1	[(999)] 999-9999 [X99999][C any text]	TN		15	O	..	e.g. 024448150
14.5	Country Code	NM		15	O	..	
14.6	Area/city code	NM		15	O	..	
14.7	Phone number	NM		15	O	..	
14.8	Extension	NM		15	O	..	
15	Primary Language	CE		483	O	0..1	
15.1	identifier	ST		20	O	..	e.g. EN
16	Marital Status	CE	HL70002	483	O	0..1	
16.1	identifier	ST		10	O	..	e.g. M
17	Religion	CE	HL70006	483	O	0..1	
17.1	identifier	ST		40	O	..	
17.2	text	ST		40	O	..	
18	Patient Account Number	CX		1913	O	0..1	
18.1	ID	ST		30	O	..	e.g. 2590852
18.4	assigning authority	HD		257	O	..	
18.4.1	namespace ID	IS		50	O	..	e.g. HIS1
18.7	effective date (DT)	DT		24	O	..	e.g. 20051107
18.8	expiration date	DT		24	O	..	
19	SSN Number - Patient	ST		50	O	0..1	e.g. 19931022175
21	Mother's Identifier	CX		1913	O	0..1	
21.1	ID	ST		40	O	..	e.g. 1234560
22	Ethnic Group	CE	HL70189	483	O	0..1	
22.1	identifier	ST		40	O	..	
23	Birth Place	ST		30	O	0..1	e.g. Deinze
24	Multiple Birth Indicator	ID	HL70136	1	O	0..1	e.g. Y
25	Birth Order	NM		2	O	0..1	e.g. 2
26	Citizenship	CE	HL70171	483	O	0..1	
26.1	identifier	ST		20	O	..	e.g. BE
29	Patient Death Date and Time	TS		26	O	0..1	
29.1	Date/Time	NM		24	O	..	
30	Patient Death Indicator	ID	HL70136	1	O	0..1	e.g. N

3. Patient Identifier List

Patient Identifier (list) which UNIQUELY identifies a single patient.

Combination of components ID and Assigning Authority should be sufficient to UNIQUELY identify a patient.

3.4. assigning authority

Authority/System that generated the patient identifier

3.6. assigning facility

Facility in which the patient identifier was generated

**4. Alternate Patient ID - PID**

Please use PID-3 and map them using the parameters PIDDomainForCode, PIDDomainForHISCode ... to the PATIENTS.xxx columns

5. Patient Name

Patient name - no repetitions allowed!

6. Mother's Maiden Name

Sometimes used in France to exchange the patients maiden name

7. Date/Time Of Birth

Patient birth date - is a required field in the RIS database

11. Patient Address

The occurrence that has an address type (PID-11-7) of P or M or blank is considered the main address and is stored in the PATIENTS table.

ALL occurrences are stored in PAT_ADDRESSES.

11.6. country

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

HL7.org suggests the 3 character alphanumeric codes from the ISO 3366-1 table.

11.7. address type

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

13. Phone Number - Home

Patients primary phone number - only the first occurrence is used !

14. Phone Number - Business

Additional (second) phone number

16.1. identifier

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

18. Patient Account Number

Account number (billing) will be linked to the visit number (PV1-19).

In a multi-site environment with multiple HIS systems, make sure that the component Assigning Authority is provided !

19. SSN Number - Patient

Social security number

21. Mother's Identifier

ID of the mother in case of a newborn

PD1 - patient additional demographic

- Usage: Not supported

NK1 - Next of kin / associated parties

- Usage: Not supported

NTE - Notes and Comments

- Usage: Not supported

Segment group: VISIT



- Usage: Required but may be empty
- Cardinality: 0..1

PV1 - Patient visit

- Usage: Required but may be empty
- Cardinality: 0..1

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - PV1	SI		4	O	0..1	e.g. 1
2	Patient Class	IS	HL70004	1	R	1..1	e.g. I
3	Assigned Patient Location	PL		1230	O	0..1	
3.1	point of care	IS		25	O	..	e.g. U31
3.2	room	IS		8	O	..	e.g. 310
3.3	bed	IS		25	O	..	e.g. A
3.4	facility (HD)	HD		222	O	..	
3.4.1	namespace ID	IS		15	O	..	e.g. FACILITY1
19	Visit Number	CX		1913	O	0..1	
19.1	ID	ST		20	R	..	e.g. 200411143
19.4	assigning authority	HD		258	O	..	
19.4.1	namespace ID	IS		50	O	..	e.g. HIS1

3.1. point of care

Care unit where the patient resides.

19. Visit Number

Required field for Agfa RIS when exchanging visit information Identifier generated per patient stay in a facility.

In a multi-site environment with multiple HIS systems make sure the component Assigning Authority is provided

19.4. assigning authority

Encouraged to use this component in a multi-site environment

PV2 - Patient visit - additional information

- Usage: Not supported

End of segment group VISIT

End of segment group PATIENT

Segment group: ORDER OBSERVATION

- Usage: Required
- Cardinality: 1..*

ORC - Common Order

- Usage: Required but may be empty
- Cardinality: 0..1

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Order Control	ID	HL70119	2	R	1..1	e.g. RE
3	Filler Order Number	EI		427	R	1..1	
3.1	entity identifier	ST		15	R	..	e.g. 131346



Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
3.2	namespace ID	IS		20	R	..	e.g. RAD

1. Order Control

Only CN and RE supported. When a single report is made for multiple procedures put CN in the order control field for all except the last procedure (for the last one we put RE in the field).

3. Filler Order Number

Should correspond to the value of OBR-3

3.1. entity identifier

Unique ID for the requested procedure - mostly accession number - should reflect the value that QDoc sent in the ORM message.

3.2. namespace ID

Performing department ID

OBR - Observation Request

- Usage: Required

- Cardinality:1..1

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - OBR	SI		4	O	0..1	e.g. 1
3	Filler Order Number	EI		427	R	1..1	
3.1	entity identifier	ST		15	R	..	e.g. 131346
3.2	namespace ID	IS		20	R	..	e.g. RAD
4	Universal Service Identifier	CE		483	R	1..1	
4.1	identifier	ST		64	R	..	e.g. CXR
4.2	text	ST		100	O	..	e.g. Chest x-ray
7	Observation Date/Time #	TS		26	R	1..1	
7.1	Date/Time	NM		18	R	..	e.g. 20070328134602
16	Ordering Provider	XCN		3002	O	0..*	
16.1	ID number (ST)	ST		15	O	..	e.g. 97845
16.2	family name	FN		185	O	..	
16.2.1	surname	ST		40	O	..	e.g. De Vos
16.3	given name	ST		30	O	..	e.g. Marcel
21	Filler Field 2 +	ST		60	O	0..1	e.g. TEMPLATE : TSRADCT
22	Results Rpt/Status Chng - Date/Time +	TS		26	O	0..1	
22.1	Date/Time	NM		18	O	..	e.g. 20040328134602
25	Result Status +	ID	HL70123	1	R	1..1	e.g. F
28	Result Copies To	XCN		3002	O	0..*	
28.1	ID number (ST)	ST		15	O	..	e.g. 777788
28.2	family name	FN		184	O	..	
28.2.1	surname	ST		40	O	..	e.g. Michiels
28.3	given name	ST		30	O	..	e.g. Daniel
32	Principal Result Interpreter +	CM_NDL		835	R	1..2	
32.1	name	CN		117	O	..	
32.1.1	ID number (ST)	ST		15	R	..	e.g. PERF01
32.1.2	family name	FN		30	O	..	

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
32.1.3	given name	ST		15	O	..	e.g. Joe
33	Assistant Result Interpreter +	CM_NDL		835	O	0..1	
33.1	name	CN		117	O	..	
33.1.1	ID number (ST)	ST		15	O	..	e.g. 46797
33.1.2	family name	FN		30	O	..	
33.1.3	given name	ST		15	O	..	e.g. Jim
35	Transcriptionist +	CM_NDL		835	O	0..1	
35.1	name	CN		122	O	..	
35.1.1	ID number (ST)	ST		20	O	..	e.g. TS01
35.1.2	family name	FN		30	O	..	
35.1.3	given name	ST		15	O	..	e.g. Jane
35.2	start date/time	TS		21	O	..	
35.2.1	Date/Time	NM		18	R	..	e.g. 200710241530
35.3	end date/time	TS		21	O	..	
35.3.1	Date/Time	NM		18	R	..	e.g. 200710241545

3. Filler Order Number

Should correspond to the value of ORC-3

3.1. entity identifier

Unique ID for the requested procedure - mostly accession number - should reflect the value that QDoc sent in the ORM message.

3.2. namespace ID

Performing department ID

4.1. identifier

QDoc procedure code

4.2. text

QDoc procedure name

7. Observation Date/Time #

Date that the report was created

16. Ordering Provider

Requesting physician or addressee(s)

16.2. family name

Only used in log messages

16.3. given name

Only used in log messages

21. Filler Field 2 +

Can be used to specify the template to be used. Format TEMPLATE:templatename

22. Results Rpt/Status Chng - Date/Time +

Date that the report was last modified

25. Result Status +

Supported values:

F (final),

P (preliminary),



S (partially validated),
C (correction).

Remark: for addenda only A (final addendum) is supported !

28. Result Copies To

Physicians that should receive a copy of the report.

32. Principal Result Interpreter +

Only 2 occurrences allowed. The first occurrence is the report author. The second occurrence is the responsible/attending physician.

32.1.1. ID number (ST)

ID of the physician

32.1.2. family name

Only used in log messages

32.1.3. given name

Only used in log messages

33. Assistant Result Interpreter +

Assistant result interpreter - not stored in the database only available as a field on the report.

35.2. start date/time

Date/time that the report was created/started

35.3. end date/time

Date/time that the report was completed

NTE - Notes and Comments

- Usage: Not supported

DG1 - Diagnosis

- Usage: Required but may be empty

- Cardinality:0..*

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - DG1	SI		4	O	0..1	e.g. 1
3	Diagnosis Code - DG1	CE	HL70051	483	O	0..1	
3.1	identifier	ST		100	O	..	e.g. V76 . 1
3.2	text	ST		100	O	..	e.g. 0TH SCREEN
3.3	name of coding system	IS	HL70396	3	O	..	e.g. I9C
3.4	alternate identifier	ST		3	O	..	
3.5	alternate text	ST		3	O	..	
3.6	name of alternate coding system	IS	HL70396	3	O	..	
5	Diagnosis Date/Time	TS		26	O	0..1	
6	Diagnosis Type	IS	HL70052	2	R	1..1	
15	Diagnosis Priority	ID	HL70359	2	O	0..1	
16	Diagnosing Clinician	XCN		3002	O	0..*	
16.1	ID number (ST)	ST		3	O	..	
16.2	family name	FN		19	O	..	
16.2.1	surname	ST		3	O	..	
16.2.2	own surname prefix	ST		3	O	..	



Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
16.2.3	own surname	ST		3	O	..	
16.2.4	surname prefix from partner/spouse	ST		3	O	..	
16.2.5	surname from partner/spouse	ST		3	O	..	
16.3	given name	ST		3	O	..	
16.4	second and further given names or initials thereof	ST		3	O	..	
16.5	suffix (e.g., JR or III)	ST		3	O	..	
16.6	prefix (e.g., DR)	ST		3	O	..	
16.7	degree (e.g., MD)	IS	HL70360	3	O	..	
16.8	source table	IS	HL70297	3	O	..	
16.9	assigning authority	HD		11	O	..	
16.9.1	namespace ID	IS	HL70363	3	O	..	
16.9.2	universal ID	ST		3	O	..	
16.9.3	universal ID type	ID	HL70301	3	O	..	
16.10	name type code	ID	HL70200	3	O	..	
16.11	identifier check digit	ST		3	O	..	
16.12	code identifying the check digit scheme employed	ID	HL70061	3	O	..	
16.13	identifier type code (IS)	IS		3	O	..	
16.14	assigning facility	HD		11	O	..	
16.14.1	namespace ID	IS	HL70363	3	O	..	
16.14.2	universal ID	ST		3	O	..	
16.14.3	universal ID type	ID	HL70301	3	O	..	
16.15	Name Representation code	ID	HL70465	3	O	..	
16.16	name context	CE	HL70448	20	O	..	
16.16.1	identifier	ST			O	..	
16.16.2	text	ST		3	O	..	
16.16.3	name of coding system	IS	HL70396	3	O	..	
16.16.4	alternate identifier	ST		3	O	..	
16.16.5	alternate text	ST		3	O	..	
16.16.6	name of alternate coding system	IS	HL70396	3	O	..	
16.17	name validity range	DR		7	O	..	
16.17.1	range start date/time	TS		3	O	..	
16.17.2	range end date/time	TS		3	O	..	
16.18	name assembly order	ID	HL70444	3	O	..	
17	Diagnosis Classification	IS	HL70228	3	O	0..1	
18	Confidential Indicator	ID	HL70136	1	O	0..1	
19	Attestation Date/Time	TS		26	O	0..1	

3. Diagnosis Code - DG1

ICD9-CM and ICD10-CM supported ! codes should have been preloaded in Agfa database

3.3. name of coding system

Coding systems I9C and I10C are supported

CTD - Contact Data

- Usage: Not supported

Segment group: OBSERVATION

- Usage: Required

- Cardinality: 1..*

OBX - Observation/Result

- Usage: Required but may be empty

- Cardinality: 0..1

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - OBX	SI		4	O	0..1	e.g. 1
2	Value Type	ID	HL70125	2	R	1..1	e.g. TX
3	Observation Identifier	CE		483	R	1..1	
3.1	identifier	ST		50	R	..	e.g. CXR&GDT
3.2	text	ST		50	O	..	e.g. Chest x-ray
5	Observation Value	ST		65000	R	1..1	e.g. Report Line 1
11	Observation Result Status	ID	HL70085	1	O	0..1	e.g. F

2. Value Type

Supported values: TX, FT, RP

3. Observation Identifier

Procedure.

In case of multiple procedures in one report - put the procedure code from the last OBR segment in this field.

3.1. identifier

Procedure code & observation sub id (e.g. CXR&GDT).

In case of an addendum the observation sub id should be ADT. OBSERVATION SUB ID IS MANDATORY. Otherwise OBX line will be skipped!

3.2. text

Procedure description

5. Observation Value

Report content.

If OBX-2 = TX this will correspond to a line in the report.

If OBX-2 = FT this field will contain the entire report - \.br\ will be used to indicate a new line.

If OBX-2 = RP this field will contain the file location where the report document resides.

11. Observation Result Status

Supported values:

F (final),

P (preliminary),

S (partially validated),

C (correction),

D (delete).

Remark: for addenda only F (final addendum) is supported !

NTE - Notes and Comments



- Usage: Not supported

End of segment group OBSERVATION

FT1 - Financial Transaction

- Usage: Not supported

CTI - Clinical Trial Identification

- Usage: Not supported

End of segment group ORDER_OBSERVATION

End of segment group PATIENT_RESULT

DSC - Continuation Pointer

- Usage: Not supported