JiveX

Conformance Statement
Version 5.5

HL7 Conformance Statement

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Used symbols:

Note:
This symbol indicates special information for easier product operation or it provides other important information.

Warning:
This warning symbol indicates important safety-related information, like warnings and precautions which cannot be placed on the product itself.

Regulatory:

CE 0482 JiveX is a class IIa medical device in accordance with regulation (EU) 2017/745.

Notice to users in the European Union: Any serious incident that has occurred in relation to the medical device should be reported to the manufacturer and the competent authority.

Table of contents

List of figures

List of tables

1 Introduction

This HL7 conformance statement is intended for persons who will be involved in integrating the JiveX Communication Server with complementary products, e. g. hospital or radiological information systems. This requires working knowledge of the HL7 standard [HL7 V2] and the IHE Radiology Technical Framework [IHE].

The software package "JiveX Communication Server" is a universal solution for managing the archiving and communication of medical images with integrated workflow control. In order to offer these services, JiveX utilizes and supports different medical communication standards. JiveX uses HL7 [HL7 V2] services to communicate with other medical systems.

JiveX supports several HL7 messages in order to provide the following capabilities:

- Allow patient demographic / encounter provider to notify JiveX about new or changed patient and encounter information.
- Allow systems like HIS or RIS for updating patient information controlled by JiveX.
- Allow for receiving information about scheduled procedures or updating information in unscheduled cases.
- Allow for receiving, extracting and storing of reports.
- Allow for generating DICOM worklist information from HL7 messages.
- Allow document sources to transfer new or updated documents to JiveX.
- Allow for forwarding all kinds of HL7 messages.

The HL7 standard neither requires manufacturers of HL7-compliant software or hardware vendors to provide a conformance statement nor describes which information should be included in such a statement.

This document utilizes or modifies some notations of a DICOM conformance statement and adds additional content if necessary.

The fact that a product X has a HL7 conformance statement which is complementary to that of JiveX, does not automatically guarantee interoperability between aforesaid product X and JiveX.

A comparison of two complementary conformance statements is only one step towards determining, whether two applications are interoperable; aside from this comparison other steps are inevitable, e. g. the analysis of interoperability requirements for the communicating applications, the creation of a test scheme to verify interoperability and the execution of this test scheme.

1.1 Definitions, Terms and Abbreviations

The following list illustrates all terms and abbreviations used in this document. For an extensive definition of these terms and abbreviations, please refer to the HL7 or DICOM standard.

- ADT Admission – Discharge - Transfer
- DICOM Digital Imaging and Communications in Medicine
- HL7 Health Level Seven
- HIS Hospital Information System

- IHE Integrating the Healthcare Enterprise
- MWL DICOM Modality Worklist
- ORM Order Request Message
- ORU Unsolicited Transmission of an Observation
- RIS Radiological Information System
- TCP/IP Transmission Control Protocol / Internet Protocol

1.2 References

- [HL7 IG]
  Health Level Seven: Health Level Seven Implementation Support Guide for HL7 Standard Version 2.3.1
- [HL7 V2]
  Health Level Seven: Application Protocol for Electronic Data Exchange in Healthcare Environments. ANSI Standard 2.3.1, Ann Arbor MI, USA
- [IHE RTF]
  Integrating the Healthcare Enterprise, IHE Radiology Technical Framework, Revision 13., *http://www.ihe.net/Technical_Framework/*↗

2 Networking

The following diagram shows the application data flow (*Fig. 2.1*↙). The circles on the right side represent real world events and deal with sending HL7 messages to the JiveX Communication Server. In the middle of the figure, different JiveX components are shown, receiving and processing messages from the real world activities. The reaction of single components is then shown in circles on the left side of the diagram.

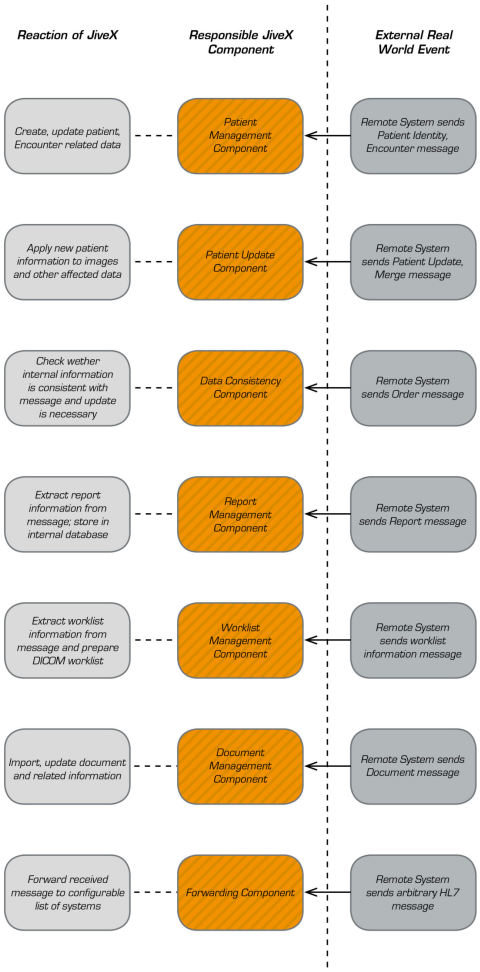

Fig. 2.1: Application Data Flow Diagram

All components, the HL7 messages they handle and their reactions are described in detail in the following sections.

2.1 HL7 Protocol Support

JiveX uses the HL7 protocol options as required by IHE. This includes the Minimal Lower Layer Protocol defined in Appendix C of the HL7 Implementation Support Guide [HL7 IG] and the Original Acknowledgement Mode defined in the HL7 standard [HL7 V2].

2.2 Notations

The networking capabilities of the JiveX Communication Server are presented separately for each JiveX component and HL7 message supported. Every HL7 message is described primarily by tables that list all segments and fields of the message JiveX is able to process. The "OPT" column in these tables uses some abbreviations listed in table *2.1*.

Abbreviation	Meaning
R	Required by HL7 standard
R2	Additionally required by IHE
C	Conditional, required under certain conditions
O	Optional

Tab. 2.1: Abbreviations for the "OPT" column

Some segments or fields are optional in the HL7 standard, but are marked as being "conditional" or "required" in the IHE framework. In such cases, the stricter IHE requirement has been selected. The corresponding condition for type "C" segments or fields can be found in the HL7 standard or the IHE framework.

If a message supports optional fields, sending an empty value means that the current value should be kept. Sending the null value, which should be transmitted as two double quote marks (""), means that the current value should be replaced with an empty value.

2.3 Patient Management Component

The Patient Management Component provides the support of the IHE actors "Patient Demographics Consumer" and "Patient Encounter Consumer" and can be used to synchronize the patient demographic data of existing studies and for tracking patient encounter data in JiveX.

2.3.1 Inbound Messages

The following HL7 events are supported by the Patient Management Component:

Functional Area	Event Code	Trigger Event	Message Structure
ADT	A01	Admit inpatient	ADT_A01
ADT	A02	Transfer patient	ADT_A02
ADT	A03	Discharge patient	ADT_A03
ADT	A04	Register outpatient	ADT_A01
ADT	A05	Pre-Admit patient	ADT_A05
ADT	A06	Change patient class to inpatient	ADT_A06
ADT	A07	Change patient class to outpatient	ADT_A06
ADT	A08	Update patient information	ADT_A01
ADT	A11	Cancel Admit/Visit Notification	ADT_A09

Functional Area	Event Code	Trigger Event	Message Structure
ADT	A12	Cancel patient transfer	ADT_A12
ADT	A13	Cancel Discharge/End Visit	ADT_A01
ADT	A28	Create new patient	ADT_A05
ADT	A31	Update patient information	ADT_A05
ADT	A38	Cancel pre-admit patient	ADT_A38
ADT	A40	Merge two patients	ADT_A39
ADT	A45	Move visit informations	ADT_A45
ADT	Z99	Update patient movement data	ADT_A01

Tab. 2.2: Supported ADT Events of the Patient Management Component

2.3.1.1 Supported Segments

For all message structures, except ADT_A39, the following table defines the supported Segments.

FunctionalArea	Segment	Segment Name	OPT	Supported by JiveX	Notes
ADT	MSH	Message Header	R	Yes	
ADT	EVN	Event Type	R	Not used	
ADT	PID	Patient Identification	R	Yes	
ADT	PV1	Patient Visit	R	Not used	

Tab. 2.3: Processed segments from ADT_A01, ADT_A02, ADT_A03, ADT_A05, ADT_A06, ADT_A09, ADT_A12, ADT_A38 message structure

The following table defines the supported Segments of the ADT_A39 message structure.

FunctionalArea	Segment	Segment Name	OPT	Supported by JiveX	Notes
ADT	MSH	Message Header	R	Yes	
ADT	EVN	Event Type	R	Not used	
ADT	PID	Patient Identification	R	Yes	
ADT	MRG	Merge Information	R	Yes	
ADT	PV1	Patient Visit	R	Not Used	

Tab. 2.4: Processed Segments from ADT_A39 message structure

2.3.1.2 Supported Fields

For the supported fields of the Segments, please refer to the Service Manual of the JiveX HL7 Gateway.

2.4 Patient Update Component

- The Patient Update Component reacts to an HL7 Patient Update (ADT^A08) or Patient Merge (ADT^A40) message sent from an external system. JiveX processes these messages and updates all affected data, e.g. images and reports, accordingly.
- In the IHE profile "Patient Information Reconciliation" [IHE RTF 6.0], the JiveX Server acts as Image Manager. It supports the IHE transactions "Patient Update" and "Patient Merge" as Image Manager.

2.4.1 Inbound Messages

The following HL7 events () are supported by the Patient Update Component:

Functional Area	Event Code	ADT Trigger Event
ADT	A08	Update patient information
ADT	A40	Merge patient – patient identifier list

Tab. 2.5: Supported ADT Events of the Patient Update Component

2.4.1.1 Update Patient Information (A08)

When receiving an ADT^A08 message, JiveX updates the patient demographics information according to the message content.

2.4.1.1.1 Supported Segments

The following segments are processed from an incoming ADT^A08 message:

FunctionalArea	Segment	Segment Name	OPT	Supported by JiveX	Notes
ADT	MSH	Message Header	R	Yes	
ADT	EVN	Event Type	R	Not used	
ADT	PID	Patient Identification	R	Yes	
ADT	PV1	Patient Visit	R	Not used	
ADT	[{OBX}]	Observation/ results	C	Not Used	
ADT	[{AL1}]	Allergy	C	Not Used	

Tab. 2.6: Processed segments from ADT^A08

2.4.1.1.2 Supported Fields

SEQ	OPT	Element Name	Supported by JiveX
1	R	Field Separator	Yes
2	R	Encoding	Yes
3	R	Sending Application	Yes

SEQ	OPT	Element Name	Supported by JiveX
4	R	Sending Facility	Yes
5	R	Receiving Application	Yes
6	R	Receiving Facility	Yes
7	O	Date/Time Of Message	
8	O	Security	
9	R	Message Type	Yes
10	R	Message Control ID	Yes
11	R	Processing ID	Yes
12	R	Version ID	Yes
13	O	Sequence Number	
14	O	Continuation Pointer	
15	O	Accept Acknowledgement Type	
16	O	Application Acknowledgement Type	
17	O	Country Code	
18	C	Character Set	
19	O	Principal Language of Message	
20	O	Alternate Character Set Handling Scheme	
21	O	Message Profile Identifier	
22	O	Sending Responsible Organization	
23	O	Receiving Responsible Organization	
24	O	Sending Network Address	
25	O	Receiving Network Address	

Tab. 2.7: Supported fields of the MSH segment (in reference to [IHE RAD])

SEQ	OPT	Element Name	Supported by JiveX
1	C	Set ID – Patient ID	
2	C	Patient ID	
3	R	Patient Identifier List	Used for patient identification. All studies of this patient will be changed.
4	C	Alternate Patient ID	
5	R	Patient Name	Updated
6	C	Mother's Maiden Name	
7	C	Date / Time of Birth	Updated
8	C	Sex	Updated
9	C	Patient Alias	
10	C	Race	

SEQ	OPT	Element Name	Supported by JiveX
11	C	Patient Address	
12	C	County Code	
13	C	Phone Number – Home	
14	C	Phone Number – Business	
15	C	Primary Language	
16	C	Marital Status	
17	C	Religion	
18	C	Patient Account Number	
19	C	SSN Number – Patient	
20	C	Driver's License Number – Patient	
21	C	Mother's Identifier	
22	C	Ethnic Group	
23	C	Birth Place	
24	C	Multiple Birth Indicator	
25	C	Birth Order	
26	C	Citizenship	
27	C	Veterans Military Status	
28	C	Nationality	
29	C	Patient Death Date and Time	
30	C	Patient Death Indicator	

Tab. 2.8: Supported fields of the PID segment (in reference to [IHE])

2.4.1.2 Merge Patient - Internal ID (A40)

When JiveX receives an ADT^A40 message, it merges two patients according to the patient identifier contained in this message.

2.4.1.2.1 Supported Segments

The following segments are processed from an incoming ADT^A40 message:

FunctionalArea	Segment	Segment Name	OPT	Supported by JiveX	Notes
ADT	MSH	Message Header	R	Yes	
ADT	EVN	Event Type	R	Not used	
ADT	PID	Patient Identification	R	Yes	
ADT	PV1	Patient Visit	R	Not Used	

FunctionalArea	Segment	Segment Name	OPT	Supported by JiveX	Notes
ADT	MRG	Merge Information	R	Yes	

Tab. 2.9: Processed Segments from ADT^A40

2.4.1.2.2 Supported Fields

The supported fields of each segment are listed in below tables.

Supported fields of the PID segment

SEQ	OPT	Element Name	Supported by JiveX
1	O	Set ID – Patient ID	
2	O	Patient ID	
3	R	Patient Identifier List	Updated
4	O	Alternate Patient ID	
5	R	Patient Name	Updated
6	O	Mother's Maiden Name	
7	O	Date / Time of Birth	Updated
8	O	Sex	Updated
9	O	Patient Alias	
10	O	Race	
11	O	Patient Address	
12	O	County Code	
13	O	Phone Number – Home	
14	O	Phone Number – Business	
15	O	Primary Language	
16	O	Marital Status	
17	O	Religion	
18	O	Patient Account Number	
19	O	SSN Number – Patient	
20	O	Driver's License Number – Patient	
21	O	Mother's Identifier	
22	O	Ethnic Group	
23	O	Birth Place	
24	O	Multiple Birth Indicator	
25	O	Birth Order	
26	O	Citizenship	
27	O	Veterans Military Status	

SEQ	OPT	Element Name	Supported by JiveX
28	O	Nationality	
29	O	Patient Death Date and Time	
30	O	Patient Death Indicator	

Tab. 2.10: Supported fields of the PID segment (in reference to [IHE])

Supported fields of the MRG segment

SEQ	OPT	Element Name	Supported by JiveX
1	R	Prior Patient Identifier List	Used for patient's identification. All studies of this patient will be changed.
2	O	Prior Alternate Patient ID	
3	O	Prior Patient Account Number	
4	R2	Prior Patient ID	
5	O	Prior Visit Number	
6	O	Prior Alternate Visit ID	
7	R2	Prior Patient Name	

Tab. 2.11: Supported fields of the MRG segment (in reference to [IHE])

2.5 Data Consistency Component

The Data Consistency Component can be used to ensure that previously stored instances, like images, contain correct patient information. Therefore, it reacts to an HL7 general order message (ORM^O01) sent from an external system and searches this message for the DICOM "Study Instance UID".

If JiveX manages corresponding studies, it checks the patient information contained in the ORM message for consistency with its internal data and, if necessary, carries out updates.

This scenario is not considered in the IHE. But the ORM^O01 message in the IHE transaction "Patient Scheduled" can be used for updating the DICOM studies in the JiveX Server.

2.5.1 Inbound Messages

These HL7 events are supported by the Data Consistency Component:

Functional Area	Event Code	ADT Trigger Event
ORM	O01	General order message

Tab. 2.12: Supported ORM Events of the Data Consistency Component

2.5.1.1 General Order Message (O01)

2.5.1.1.1 Supported Segments

The following segments are processed from an incoming ORM^O01 message:

Functional Area	Segment	Segment Name	OPT	Supported	Notes
ORM	MSH	Message Header	R	Yes	
ORM	PID	Patient Identification	R	Yes	
ORM	PV1	Patient Visit	R	Yes	
ORM	ORC	Common Order	R	Not used	
ORM	OBR	Order Detail Segment, etc.	R	Yes	
ORM	ZDS	Additional identification information (custom for IHE)	R	Yes	

Tab. 2.13: Processed Segments from ORM^O01

2.5.1.1.2 Supported Fields

In the following tables, the supported fields of each segment are listed.

- For supported fields of the MSH segment, please refer to table *supported fields of the MSH segment* in chapter *Supported Fields*.
- For supported fields of the PID segment, please refer to the following.

SEQ	OPT	Element Name	Supported by JiveX
1	O	Set ID – Patient ID	
2	O	Patient ID	
3	R	Patient Identifier List	Updated
4	O	Alternate Patient ID	
5	R	Patient Name	Updated
6	O	Mother's Maiden Name	
7	O	Date / Time of Birth	Updated
8	O	Sex	Updated
9	O	Patient Alias	
10	O	Race	
11	O	Patient Address	
12	O	County Code	
13	O	Phone Number – Home	
14	O	Phone Number – Business	
15	O	Primary Language	
16	O	Marital Status	

SEQ	OPT	Element Name	Supported by JiveX
17	O	Religion	
18	O	Patient Account Number	
19	O	SSN Number – Patient	
20	O	Driver's License Number – Patient	
21	O	Mother's Identifier	
22	O	Ethnic Group	
23	O	Birth Place	
24	O	Multiple Birth Indicator	
25	O	Birth Order	
26	O	Citizenship	
27	O	Veterans Military Status	
28	O	Nationality	
29	O	Patient Death Date and Time	
30	O	Patient Death Indicator	

Tab. 2.14: Supported fields of the PID segment (in reference to [IHE])

Supported fields of the PV1 segment

SEQ	OPT	Element Name	Supported by JiveX
1	O	Set ID – PV1	
2	O	Patient Class	
3	O	Assigned Patient Location	
4	O	Admission Type	
5	O	Preadmit Number	
6	O	Prior Patient Location	
7	O	Attending Doctor	
8	O	Referring Doctor	Updated (Optionally in "Referring Physicians Name")
9	O	Consulting Doctor	
10	O	Hospital Service	
11	O	Temporary Location	
12	O	Preadmit Test Indicator	
13	O	Readmission Indicator	
14	O	Admit Source	
15	O	Ambulatory Status	
16	O	VIP Indicator	

SEQ	OPT	Element Name	Supported by JiveX
17	O	Admitting Doctor	
18	O	Patient Type	
19	C	Visit Number	
20	O	Financial Class	
21	O	Charge Price Indicator	
22	O	Courtesy Code	
23	O	Credit Rating	
24	O	Contract Code	
25	O	Contract Effective Date	
26	O	Contract Amount	
27	O	Contract Period	
28	O	Interest Code	
29	O	Transfer to Bad Debt Code	
30	O	Transfer to Bad Debt Date	
31	O	Bad Debt Agency Code	
32	O	Bad Debt Transfer Amount	
33	O	Bad Debt Recovery Amount	
34	O	Delete Account Indicator	
35	O	Delete Account Date	
36	O	Discharge Disposition	
37	O	Discharged to Location	
38	O	Diet Type	
39	O	Servicing Facility	
40	O	Bed Status	
41	O	Account Status	
42	O	Pending Location	
43	O	Prior Temporary Location	
44	O	Admit Date / Time	
45	O	Discharge Date / Time	
46	O	Current Patient Balance	
47	O	Total Charges	
48	O	Total Adjustments	
49	O	Total Payments	
50	O	Alternate Visit ID	
51	C	Visit Indicator	

SEQ	OPT	Element Name	Supported by JiveX
52	O	Other Healthcare Providers	

Tab. 2.15: Supported fields of the PV1 segment (in reference to [IHE])

Supported fields of the OBR segment

SEQ	OPT	Element Name	Supported by JiveX
4	R	Universal Service ID	Updated. This field will be mapped to the Study Description.
18	R	Placer Field 1	Updated (optionally). This field will be mapped to the Accession Number.

Tab. 2.16: Supported fields of the OBX segment (in reference to [IHE])

Supported fields of the ZDS segment

SEQ	OPT	Element Name	Supported by JiveX
1	R	Study Instance UID	YES. On the JiveX Server, the DICOM study with an identical DICOM Study Instance UID will be updated.

Tab. 2.17: Supported fields of the ZDS segment (in reference to [IHE])

2.6 DICOM Worklist Creation

An additional functionality of ORM^O01 is the creation of DICOM worklist entries.

JiveX allows for using information contained in ORM^O01 messages to create DICOM worklist entries. For more details, please refer to section *"Worklist Management Component"*↙.

2.7 Report Management Component

JiveX is able to receive and store reports by using a configuration file. Here, the following is defined:

- Mapping of a received report to a DICOM study. Usually, this is achieved by using the DICOM "Accession Number" and / or "Study Instance UID".
- Location of the following fields in the HL7 message:
- Patient ID
- Reporting Physician
- Accession Number
- Study Instance UID
- Report Status
- Report Text

Usually a report is expected to be of the message type "ORU". However, JiveX allows for extracting reports from every kind of HL7 message.

2.8 Worklist Management Component

JiveX can easily be configured to extract worklist information from HL7 messages and to prepare a DICOM worklist from this data. In order to select the correct HL7 fields and "convert" them to DICOM worklist information, a configuration file is used to adapt JiveX to the needs of the surrounding medical infrastructure.

2.9 Document Management Component

JiveX act as a Document Repository and is able to use the HL7 MDM messages as an input channel. Therefore JiveX supports the transmission of new or updated documents including additional information.

Documents have to be in the Portable Document Format (PDF) and can be referenced by a filename (absolute URL or relative to a local storage path) or be inline transferred as a Base 64 encoded field content.

JiveX assumes that all documents are unique, and document numbers and file names are not reused.

2.9.1 Inbound Messages

The following table defines the support of the incoming MDM Events.

Functional Area	Event Code	Trigger Event	Message Structure
MDM	T02	Original document notification and content	MDM_T02
MDM	T08	Document edit notification and content	MDM_T02
MDM	T11	Document cancel notification	MDM_T02

Tab. 2.18: Supported Events of the Document Management Component

2.9.1.1 Supported Segments of MDM_T02 message structure

The following segments are processed from an incoming HL7 message with the MDM_T02 message structure:

Functional Area	Segment	Segment Name	OPT	Support	Notes
MDM	MSH	Message Header	R	Yes	
MDM	EVN	Event Type	R	Yes	
MDM	PID	Patient Identification	R	Yes	
MDM	PV1	Patient Visit	R	Yes	
MDM	[ORC	Common Order	C	Yes	Note 1, 3
MDM	OBR]	Order Detail Segment	C	Yes	Note 1, 3
MDM	TXA	Transcription Document Header	R	Yes	
MDM	{ OBX }	Observation/ results	C	Yes	Note 2, 3

Tab. 2.19: Processed segments from MDM_T02 message structure

Note 1: The ORC/OBR segments are required if a reference to an existing order is not located in the TXA segment.

Note 2: The OBX segment is required, if the document is transferred inline.

Note 3: Only one segment repetition is supported.

2.9.1.2 Supported Fields

For the supported fields of the segments refer the Service Manual of the JiveX HL7 Gateway.

2.9.2 Outbound Messages

The HL7 Document Service is sending an HL7 acknowledgement "Application Accept (AA)", if the received message is valid, all required fields are filled and, if needed for transaction, a referenced binary file is accessible. This acknowledgement does not contain the successful message processing, as a "Commit Accept (CA)" would do. In order to ensure successful processing (consumption), the usage of the HL7 Notification Component is recommended.

2.10 Forwarding Component

JiveX offers a general "HL7 Forwarding Component". It can be configured to forward every received HL7 message to a configurable list of systems. The sequence of messages is retained by the "Forwarding Component" and the messages are not altered in any way.

3 Outbound Messages

By default, the JiveX Communication Server does not send any outbound HL7 messages.

These HL7 events are sent by the JiveX Communication Server:

Functional Area	Event Code	ADT Trigger Event
ANY	*ANY*	Message Forwarding
ORM	O01	General Order Notification Message

Tab. 3.1: Outbound message types

3.1 Message Forwarding

If configured, the JiveX Communication Server might send HL7 messages forwarded by the "Forwarding Component" (see section *"Forwarding Component"*↙).

3.2 HL7 Study Notification Messages

If configured, the JiveX Communication Server can send notification messages on incoming DICOM studies. By default, this outgoing message is of the type "ORM^O01". Since the fields to be sent can be configured, the following table lists the default setting of a standard setup.

3.2.1 General Order Notification Message (O01)

3.2.1.1 Predefined Segments

The following segments are predefined for an outgoing ORM^O01 message. In one segment, the ZDS segment sums up all information provided in the other segments. By default, "˝ is the component separator in message fields.

Functional Area	Segment	Segment Name	Notes
ORM	MSH	Message Header	
ORM	PID	Patient Identification	
ORM	PV1	Patient Visit	
ORM	ORC	Common Order	
ORM	OBR	Order Detail Segment, etc.	
ORM	OBX	Observation / Results	
ORM	ZDS	Additional identification information(custom for IHE)	

Tab. 3.2: Predefined Segments for an ORM^O01 notification message

3.2.1.2 Predefined Fields

The following tables list the predefined fields of each segment.

Predefined fields of the MSH segment

SEQ	Element Name	Comp. Index	Default Value
1	Field Separator	1	Default: |
2	Encoding Characters	1	Default: ^~\&
3	Sending Application	1	Default: JiveX
4	Sending Facility	1	Default: HL7 Notification Service
5	Receiving Application	1	Default: Receiver
6	Receiving Facility	1	Default: Receiver
7	Date/Time Of Message	1	
8	Security	1	
9	Message Type	1	Default: ORM^O01Messagetyp^Event^Messagestructure
10	Message Control ID	1	
11	Processing ID	1	Default: P
12	Version	1	Default: 2.3
17	Country Code	1	Default: DEU
18	Character Set	1	Default: ISO8859–1
19	Principal Language of Message	1	Default: DEU

Tab. 3.3: Predefined fields of the MSH segment (in reference to [IHE])

Predefined fields of the PID segment

SEQ	Element Name	Comp. Index	Default Value
3	Patient's ID	2	
4	Other Patient's ID	2	
5	Patient's Name	1	
6	Other Patient's Name	2	
7	Patient's Birth Date	1	Default: yyyyMMdd
8	Patient's Sex	1	

Tab. 3.4: Predefined fields of the MSH segment (in reference to [IHE])

Predefined fields of the OBR segment

SEQ	Element Name	Comp. Index	Default Value
4	Study Description	1,2,3	
4	Study ID	4	
11	Modality	1	

SEQ	Element Name	Comp. Index	Default Value
18	Accession Number	1	

Tab. 3.5: Predefined fields of the OBR segment (in reference to [IHE])

Predefined fields of the ORC segment

SEQ	Element Name	Comp. Index	Default Value
2	Accession Number	1	
7	Study Date	3	Default: yyyyMMdd
7	Study Time	2	Default:hhmmss.fffffff

Tab. 3.6: Predefined fields of the ORC segment (in reference to [IHE])

Predefined fields of the PV1 segment

SEQ	Element Name	Comp. Index	Default Value
18	Referring Physician's Name	1	
19	Admission Number	1	

Tab. 3.7: Predefined fields of the PV1 segment (in reference to [IHE])

Predefined fields of the OBX segment

SEQ	Element Name	Comp. Index	Default Value
5	DICOM Study Instance UID	1	

Tab. 3.8: Predefined fields of the OBX segment (in reference to [IHE])

Predefined fields of the ZDS segment

SEQ	Element Name	Comp. Index	Default Value
1	DICOM Study Instance UID	1,2	
3	Patient's ID	1	
4	Other Patient's ID	1	
5	Patient's Name	1	
6	Other Patient's Name	1	
7	Patient's Birth Date	1	Default: yyyyMMdd
7	Patient's Birth Date	2	Default: ddMMyyyy
8	Patient's Sex	1	
9	Free	1	Free for extensions
10	Free	1	Free for extensions

SEQ	Element Name	Comp. Index	Default Value
11	Free	1	Free for extensions
12	Free	1	Free for extensions
13	Study Description	1	
14	Study Date	1	Default: yyyyMMdd
14	Study Date	2	Default: ddMMyyyy
14	Study Date+Time	3	Default: yyyyMMddhhmmss.fffffff
14	Study Date+Time	4	Default: ddMMyyyyhhmmss.fffffff
15	Study Time	1	Default: hhmmss.fffffff
16	Referring Physician's Name	1	
17	Modality	1	
18	DICOM Study Instance UID	1	
19	Accession Number	1	
20	Study ID	1	
21	Admission Number	1	
22	Free	1	Free for extensions
23	Free	1	Free for extensions
24	Free	1	Free for extensions
25	Free	1	Free for extensions

Tab. 3.9: Predefined fields of the ZDS segment (in reference to [IHE])

4 Supported Character Sets

JiveX supports ISO 8859 and Unicode UTF8 character sets.

5 Configuration

JiveX can be configured extensively by using configuration files. For detailed information, please refer to the Service Manual Communication Server.