Pukka-j Limited

Technical documentation:

Statement of HL7 conformance

Version: **5.4.5(2)**

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2   HL7 conformance statement

2.1   Introduction

Pukka-J products are able to communicate with third party software by implementing the HL7 2.4 data protocol. The information contained here is to provide the information necessary for a system administrator or system supplier to ascertain that their HIS, RIS, PACS or broker system will correctly exchange information with Pukka-J products.

2.2   Glossary

ACK   Acknowledgement
ADT   Admission, Discharge and Transfer System
DSC   Continuation pointer
DSP   Display data
EDR   Enhanced display response
EQQ   Embedded query language query
ERR   Error
EVN   Event type
HIS   Hospital information system
HL7   Health level seven
MLLP   Minimal Lower Layer Protocol
MSA   Message acknowledgment
MRG   Merge
MSH   Message header
NTE   Notes and comments
OBR   Observation request
OBX   Observation/result
ORC   Order (common)
ORM   Order message
ORR   Order response
ORU   Observational results (unsolicited)
PACS   Picture archiving and communication system
PID   Patient identification
PV   Patient visit
RIS   Radiology information system
QAK   Query acknowledgment
SIU   Scheduling information (unsolicited)

2.3   Communication

Pukka-J software can perform the following tasks:

- Send trigger messages
- Receive trigger messages

- Issue queries
- Receive and process queries

Each HL7 message received must be constructed according to the Minimal Lower Layer Protocol. Only messages and triggers detailed in this document are supported.

2.4 HL7 messages and triggers

Table 1 lists the messages and triggers that are supported by Pukka-J applications. Should Pukka-J software receive messages other than those listed and 'application reject' acknowledgement will be returned. The event types of interest are:

- Admission, discharge and transfer (ADT)
    - o Registration
    - o Update
    - o Arrival
    - o Merge
- Radiology orders
- Radiology reports
- Scheduling information
    - o Cancellations

Table 1 Supported messages and triggers:

Trigger event	Messages	Supported	Description
-	ACK	Outbound/inbound	General acknowledgement
A01	ADT/ACK	Inbound	Admit/visit notification
A03	ADT/ACK	Inbound	Discharge/end
A04	ADT/ACK	Outbound/inbound	Register
A05	ADT/ACK	Inbound	Pre-admit
A08	ADT/ACK	Outbound/inbound	Update patient information
A09	ADT/ACK	Inbound	Patient departing – tracking
A10	ADT/ACK	Outbound/inbound	Patient arriving – tracking
A17	ADT/ACK	Inbound	Swap patients
A18	ADT/ACK	Outbound/inbound	Merge patient information
A23	ADT/ACK	Inbound	Delete a patient record
A24	ADT/ACK	Inbound	Link patient information
A34	ADT/ACK	Inbound	Merge patient – patient ID
A36	ADT/ACK	Inbound	Merge patient – patient ID and account number
A40	ADT/ACK	Inbound	Merge patient – internal ID
O01	ORM	Outbound/Inbound	General order message
O02	ORR	Outbound/inbound	General order response message
Q01	EDR	Outbound	Enhanced display response
Q04	EQQ	Outbound/inbound	Embedded query language query

Trigger event	Messages	Supported	Description
R01	ORU	Outbound/inbound	Observational results (unsolicited)
S15	SIU	Inbound	Notification of appointment cancellation

2.5 Outbound message descriptions

The following message descriptions are a list of message segments in the form SEGMENT1 SEGMENT2 [SEGMENT3]. Message segments delimited by square brackets indicate that information is only included when available (SEGMENT3 in this example).

2.5.1 ACK

The simple general acknowledgment (ACK) is used where the application does not define a special application level acknowledgment message (such as an EDR or ORR) or where there has been an error that precludes application processing.

Message: MSH MSA [ERR]

2.5.2 ADT

The ADT transaction set provides for the transmission of new or updated demographic and visit information about patients. Since virtually any system attached to the network requires information about patients, the ADT transaction set is one of the most commonly used.

2.5.2.1 A04

An A04 event signals that the patient has arrived or checked in as a one-time, or recurring outpatient, and is not assigned to a bed.

Message: MSH EVN PID PV1 [NTE]

2.5.2.2 A08

This trigger event is used when any patient information has changed but when no other trigger event has occurred. For example, an A08 event can be used to notify the receiving systems of a change of address or a name change.

Message: MSH EVN PID PV1 [NTE]

2.5.2.3 A10

The A10 event is sent when a patient arrives at a new location in the healthcare facility (NOT a change in the official census bed location).

Message: MSH EVN PID PV1 [NTE]

2.5.2.4 A18

The A18 is used to merge current and previous patient identification numbers. This procedure is required, for example, when a previous patient is registered under a new patient identification number because of an error, or because there was insufficient time to determine the actual patient identification number. The merge event occurs when a decision is made to combine the information under either the new or the old identifier(s).

Message: MSH EVN PID [MRG] PV1 [NTE]

2.5.3   EDR
Message: MSH MSA [ERR] QAK [DSP] [DSC]

2.5.4   ORM
The function of this message is to initiate the transmission of information about an order. This includes, but not exclusively, placing new orders, cancellation of existing orders and discontinuation.

When responding to an incoming ORM, Pukka-J software can be configured to respond with either an ORM or an ORR. When choosing to respond with an ORM, the Pukka-J system formats the outgoing message to be the same as the incoming received message (and therefore not necessarily the same format as a native Pukka-J produced ORM that follows).

The native Pukka-J format of ORM message is:

Message: MSH PID [PV1] ORC OBR

2.5.5   ORR
The function of this message is to respond to an ORM message. An ORR message is the application acknowledgment to an ORM message. Alternatively, the system can be configured to respond with an ORM.

The native Pukka-J format of ORR message is:

Message: MSH MSA [ERR] ORC

2.5.6   ORU
The ORU message is designed to provide transaction of structured, patient oriented, clinical data from one computer system to another. A common use of these transaction sets will be to transmit observations and results of diagnostic studies from the producing system to the ordering system

Message: MSH PID [PV1] [ORC] OBR [OBX]

2.6   Segment mappings
For completeness, and to remove ambiguity between versions of the HL7 standards, this section tables the message segments used by Pukka-J in the 2.4 version of the standard. For data types, see the following section.

Table 2 DSC field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	180	ST	O			00014	Continuation Pointer

Table 3 DSP field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	4	SI	O			00061	Set ID - DSP
2	4	SI	O			00062	Display Level
3	300	TX	R			00063	Data Line
4	2	ST	O			00064	Logical Break Point
5	20	TX	O			00065	Result ID

Table 4 ERR field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	80	CM	R	Y		00024	Error Code and Location

Table 5 EVN field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	3	ID	B		0003	00099	Event Type Code
2	26	TS	R			00100	Recorded Date/Time
3	26	TS	O			00101	Date/Time Planned Event
4	3	IS	O		0062	00102	Event Reason Code
5	60	XCN	O		0188	00103	Operator ID
6	26	TS	O			01278	Event Occurred

Table 6 MRG field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	20	CX	R	Y		00211	Prior Patient ID - Internal
2	16	CX	O	Y		00212	Prior Alternate Patient ID
3	20	CX	O			00213	Prior Patient Account Number
4	16	CX	O			00214	Prior Patient ID - External
5	15	CX	O			01279	Prior Visit Number
6	20	CX	O			01280	Prior Alternate Visit ID
7	48	XPN	O			01281	Prior Patient Name

Table 7 MSA field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	2	ID	R		0008	00018	Acknowledgment Code
2	20	ST	R			00010	Message Control ID
3	80	ST	O			00020	Text Message
4	15	NM	O			00021	Expected Sequence Number
5	1	ID	B		0102	00022	Delayed Acknowledgment Type
6	100	CE	O			00023	Error Condition

Table 8 MSH field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	1	ST	R			00001	Field Separator
2	4	ST	R			00002	Encoding Characters
3	180	HD	O			00003	Sending Application
4	180	HD	O			00004	Sending Facility
5	180	HD	O			00005	Receiving Application
6	180	HD	O			00006	Receiving Facility
7	26	TS	O			00007	Date/Time Of Message
8	40	ST	O			00008	Security
9	7	CM	R			00009	Message Type
10	20	ST	R			00010	Message Control ID
11	3	PT	R			00011	Processing ID
12	8	ID	R		0104	00012	Version ID
13	15	NM	O			00013	Sequence Number
14	180	ST	O			00014	Continuation Pointer
15	2	ID	O		0155	00015	Accept Acknowledgment Type
16	2	ID	O		0155	00016	Application Acknowledgment Type
17	2	ID	O			00017	Country Code
18	6	ID	O	Y/3	0211	00692	Character Set
19	60	CE	O			00693	Principal Language Of Message

Table 9 OBR field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	4	SI	C			00237	Set ID - OBR
2	75	EI	C			00216	Placer Order Number
3	75	EI	C			00217	Filler Order Number
4	200	CE	R			00238	Universal Service ID
5	2	ID	B			00239	Priority
6	26	TS	B			00240	Requested Date/time
7	26	TS	C			00241	Observation Date/Time
8	26	TS	O			00242	Observation End Date/Time
9	20	CQ	O			00243	Collection Volume
10	60	XCN	O	Y		00244	Collector Identifier
11	1	ID	O		0065	00245	Specimen Action Code
12	60	CE	O			00246	Danger Code
13	300	ST	O			00247	Relevant Clinical Info.
14	26	TS	C			00248	Specimen Received Date/Time
15	300	CM	O		0070	00249	Specimen Source
16	80	XCN	O	Y		00226	Ordering Provider
17	40	XTN	O	Y/2		00250	Order Callback Phone Number
18	60	ST	O			00251	Placer field 1
19	60	ST	O			00252	Placer field 2
20	60	ST	O			00253	Filler Field 1
21	60	ST	O			00254	Filler Field 2
22	26	TS	C			00255	Results Rpt/Status Chng - Date/Time
23	40	CM	O			00256	Charge to Practice
24	10	ID	O		0074	00257	Diagnostic Serv Sect ID
25	1	ID	C		0123	00258	Result Status
26	400	CM	O			00259	Parent Result
27	200	TQ	O	Y		00221	Quantity/Timing
28	150	XCN	O	Y/5		00260	Result Copies To
29	150	CM	O			00261	Parent
30	20	ID	O		0124	00262	Transportation Mode
31	300	CE	O	Y		00263	Reason for Study
32	200	CM	O			00264	Principal Result Interpreter
33	200	CM	O	Y		00265	Assistant Result Interpreter
34	200	CM	O	Y		00266	Technician
35	200	CM	O	Y		00267	Transcriptionist

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
36	26	TS	O			00268	Scheduled Date/Time
37	4	NM	O			01028	Number of Sample Containers
38	60	CE	O	Y		01029	Transport Logistics of Collected Sample
39	200	CE	O	Y		01030	Collector's Comment
40	60	CE	O			01031	Transport Arrangement Responsibility
41	30	ID	O		0224	01032	Transport Arranged
42	1	ID	O		0225	01033	Escort Required
43	200	CE	O	Y		01034	Planned Patient Transport Comment

Table 10 OBX field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	10	SI	O			00569	Set ID - OBX
2	2	ID	C		0125	00570	Value Type
3	590	CE	R			00571	Observation Identifier
4	20	ST	C			00572	Observation Sub-ID
5	65536[1]	[2]	C	Y[3]		00573	Observation Value
6	60	CE	O			00574	Units
7	10	ST	O			00575	References Range
8	5	ID	O	Y/5	0078	00576	Abnormal Flags
9	5	NM	O			00577	Probability
10	2	ID	O	Y	0080	00578	Nature of Abnormal Test
11	1	ID	R		0085	00579	Observation Result Status
12	26	TS	O			00580	Date Last Observed Normal Values
13	20	ST	O			00581	User Defined Access Checks

[1]The length of the observation value field is variable, depending upon value type. See OBX-2-value type.
[2]This field contains the value of OBX-3 (observation identifier) of the same segment. Depending upon the observation, the data type may be a number (e.g., a respiratory rate), a coded answer (e.g., a pathology impression recorded as SNOMED), or a date-time (the date-time that a unit of blood is sent to the ward). An observation value is always represented as the data type specified in OBX-2-value type of the same segment. Whether numeric or short text, the answer shall be recorded in ASCII text.
[3]May repeat for multipart, single answer results with appropriate data types (e.g., CE, TX, and FT data types).

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
14	26	TS	O			00582	Date/Time of the Observation
15	60	CE	O			00583	Producer's ID
16	80	XCN	O			00584	Responsible Observer
17	60	CE	O	Y		00936	Observation Method

Table 11 ORC field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	2	ID	R		0119	00215	Order Control
2	22	EI	C			00216	Placer Order Number
3	22	EI	C			00217	Filler Order Number
4	22	EI	O			00218	Placer Group Number
5	2	ID	O		0038	00219	Order Status
6	1	ID	O		0121	00220	Response Flag
7	200	TQ	O			00221	Quantity/Timing
8	200	CM	O			00222	Parent
9	26	TS	O			00223	Date/Time of Transaction
10	120	XCN	O			00224	Entered By
11	120	XCN	O			00225	Verified By
12	120	XCN	O			00226	Ordering Provider
13	80	PL	O			00227	Enterer's Location
14	40	XTN	O	Y/2		00228	Call Back Phone Number
15	26	TS	O			00229	Order Effective Date/Time
16	200	CE	O			00230	Order Control Code Reason
17	60	CE	O			00231	Entering Organization
18	60	CE	O			00232	Entering Device
19	120	XCN	O			00233	Action By

Table 12 NTE field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	4	SI	O			00096	Set ID - NTE
2	8	ID	O		0105	00097	Source of Comment
3	64k	FT	O	Y		00098	Comment

Table 13 PID field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	4	SI	O			00104	Set ID - Patient ID
2	20	CX	O			00105	Patient ID (External ID)
3	20	CX	R	Y		00106	Patient ID (Internal ID)
4	20	CX	O	Y		00107	Alternate Patient ID - PID
5	48	XPN	R			00108	Patient Name
6	48	XPN	O			00109	Mother's Maiden Name
7	26	TS	O			00110	Date/Time of Birth
8	1	IS	O		0001	00111	Sex
9	48	XPN	O	Y		00112	Patient Alias
10	1	IS	O		0005	00113	Race
11	106	XAD	O	Y		00114	Patient Address
12	4	IS	B			00115	County Code
13	40	XTN	O	Y		00116	Phone Number - Home
14	40	XTN	O	Y		00117	Phone Number - Business
15	60	CE	O		0296	00118	Primary Language
16	1	IS	O		0002	00119	Marital Status
17	3	IS	O		0006	00120	Religion
18	20	CX	O			00121	Patient Account Number
19	16	ST	O			00122	SSN Number - Patient
20	25	CM	O			00123	Driver's License Number - Patient
21	20	CX	O	Y		00124	Mother's Identifier
22	3	IS	O		0189	00125	Ethnic Group
23	60	ST	O			00126	Birth Place
24	2	ID	O		0136	00127	Multiple Birth Indicator
25	2	NM	O			00128	Birth Order
26	4	IS	O	Y	0171	00129	Citizenship
27	60	CE	O		0172	00130	Veterans Military Status
28	80	CE	O			00739	Nationality
29	26	TS	O			00740	Patient Death Date and Time
30	1	ID	O		0136	00741	Patient Death Indicator

Table 14 PV1 field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	4	SI	O			00131	Set ID - PV1
2	1	IS	R		0004	00132	Patient Class
3	80	PL	O			00133	Assigned Patient Location
4	2	IS	O		0007	00134	Admission Type
5	20	CX	O			00135	Preadmit Number
6	80	PL	O			00136	Prior Patient Location
7	60	XCN	O	Y	0010	00137	Attending Doctor
8	60	XCN	O	Y	0010	00138	Referring Doctor
9	60	XCN	O	Y	0010	00139	Consulting Doctor
10	3	IS	O		0069	00140	Hospital Service
11	80	PL	O			00141	Temporary Location
12	2	IS	O		0087	00142	Preadmit Test Indicator
13	2	IS	O		0092	00143	Readmission Indicator
14	3	IS	O		0023	00144	Admit Source
15	2	IS	O	Y	0009	00145	Ambulatory Status
16	2	IS	O		0099	00146	VIP Indicator
17	60	XCN	O	Y	0010	00147	Admitting Doctor
18	2	IS	O		0018	00148	Patient Type
19	20	CX	O			00149	Visit Number
20	50	CM	O	Y	0064	00150	Financial Class
21	2	IS	O		0032	00151	Charge Price Indicator
22	2	IS	O		0045	00152	Courtesy Code
23	2	IS	O		0046	00153	Credit Rating
24	2	IS	O	Y	0044	00154	Contract Code
25	8	DT	O	Y		00155	Contract Effective Date
26	12	NM	O	Y		00156	Contract Amount
27	3	NM	O	Y		00157	Contract Period
28	2	IS	O		0073	00158	Interest Code
29	1	IS	O		0110	00159	Transfer to Bad Debt Code
30	8	DT	O			00160	Transfer to Bad Debt Date
31	10	IS	O		0021	00161	Bad Debt Agency Code
32	12	NM	O			00162	Bad Debt Transfer Amount
33	12	NM	O			00163	Bad Debt Recovery Amount
34	1	IS	O		0111	00164	Delete Account Indicator
35	8	DT	O			00165	Delete Account Date
36	3	IS	O		0112	00166	Discharge Disposition
37	25	CM	O		0113	00167	Discharged to Location
38	2	IS	O		0114	00168	Diet Type

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
39	2	IS	O		0115	00169	Servicing Facility
40	1	IS	B		0116	00170	Bed Status
41	2	IS	O		0117	00171	Account Status
42	80	PL	O			00172	Pending Location
43	80	PL	O			00173	Prior Temporary Location
44	26	TS	O			00174	Admit Date/Time
45	26	TS	O			00175	Discharge Date/Time
46	12	NM	O			00176	Current Patient Balance
47	12	NM	O			00177	Total Charges
48	12	NM	O			00178	Total Adjustments
49	12	NM	O			00179	Total Payments
50	20	CX	O		0192	00180	Alternate Visit ID
51	1	IS	O		0326	01226	Visit Indicator
52	60	XCN	O	Y	0010	01224	Other Healthcare Provider

Table 15 QAK field definitions

Position	Maximum length	Data type	Optional or Required	Repetition (Y, # or blank)	HL7 table number	ID number	Name
1	32	ST	C			00696	Query Tag
2	2	ID	O		0208	00708	Query Response Status

2.7 Data types

For completeness, and to remove ambiguity between versions of the HL7 standards, this section tables the data types and abbreviations used by Pukka-J in the 2.4 version of the standard.

Table 16 HL7 data types

Data Type Category/ Data type	Data Type Name	Notes/Format
Alphanumeric:		
ST	String	
TX	Text data	
FT	Formatted text	
Numerical:		
NM	Numeric	
SI	Sequence ID	
Identifier:		
ID	Coded values for HL7 tables	

Data Type Category/ Data type	Data Type Name	Notes/Format
IS	Coded value for user-defined tables	
HD	Hierarchic designator	<namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)> Used only as part of EI and other data types.
PL	Person location	<point of care (IS)> ^ <room (IS)> ^ <bed (IS)> ^ <facility (HD)> ^ < location status (IS)> ^ <person location type (IS)> ^ <building (IS)> ^ <floor (IS)> ^ <location description (ST)>
PT	Processing type	<processing ID (ID)> ^ <processing mode (ID)>
Date/Time:		
DT	Date	YYYY[MM[DD]]
TM	Time	HH[MM[SS[.S[S[S[S]]]]]][+/-ZZZZ]
TS	Time stamp	YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ] ^ <degree of precision>
TQ	Timing/quantity	For timing/quantity specifications for orders, see Chapter 4, Section 4.4. <quantity (CQ)> ^ <interval (*)> ^ <duration (*)> ^ <start date/time (TS)> ^ <end date/time (TS)> ^ <priority (ID)> ^ <condition (ST)> ^ <text (TX)> ^ <conjunction (ID)> ^ <order sequencing (*)>
Code Values:		
CE	Coded element	<identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)>
CN	Composite ID number and name	<ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <source table (IS)> ^ <assigning authority (HD)>
CX	Extended composite ID with check digit	<ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD))> ^ <identifier type code (IS)> ^ < assigning facility (HD)
XCN	Extended composite ID number and name	In Version 2.3, use instead of the CN data type. <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <source table (IS)> ^ <assigning authority (HD)> ^ <name type code (ID)> ^ <identifier check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ <identifier type code (IS)> ^ <assigning facility (HD)>
Generic:		
CM	Composite	No new CM's are allowed after HL7 Version 2.2. Hence there are no new CM's in Version 2.3.
Demographics:		
AD	Address	<street address (ST)> ^ < other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <zip or postal code (ST)> ^ <country (ID)> ^ <address type (ID)> ^ <other geographic designation (ST)>
PN	Person name	<family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)>

Data Type Category/ Data type	Data Type Name	Notes/Format
TN	Telephone number	[NN] [(999)]999-9999[X99999][B99999][C any text]
XAD	Extended address	In Version 2.3, replaces the AD data type. <street address (ST)> ^ <other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <zip or postal code (ST)> ^ <country (ID)> ^ < address type (ID)> ^ <other geographic designation (ST)> ^ <county/parish code (IS)> ^ <census tract (IS)>
XPN	Extended person name	In Version 2.3, replaces the PN data type. <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <name type code (ID) >
XTN	Extended telecommunications number	In Version 2.3, replaces the TN data type. [NNN] [(999)]999-9999 [X99999] [B99999] [C any text] ^<telecommunication use code (ID)> ^ <telecommunication equipment type (ID)>^ <email address (ST)> ^ <country code (NM)> ^ <area/city code (NM)> ^ <phone number (NM)> ^ <extension (NM)> ^ <any text (ST)>
Time Series:		
DR	Date/time range	Scheduling Chapter Only: <range start date/time (TS)> ^ <range end date/time (TS)>