HL7 Interface Specification for PCMM Primary Care Acknowledgement Processing

1 AUSTIN AUTOMATION CENTER (AAC) ERROR PROCESSING

This section describes the process by which acknowledgment (ACK) messages are generated by the AAC back to the **V**ISTA originating site, advising them of a successful or failed (error) HL7 message transmission.

Section 1.1 provides a general description of the validation process that occurs at the AAC. Section 1.2 describes the message control segments contained in the acknowledgment message. Section 1.3 provides examples of specific transactions that will occur between **V**ISTA and the AAC.
Section 1.4 describes the HL7 supported and user defined tables.

1.1 Austin Automation Center (AAC) Validation Process
After PCMM HL7 (ADT~A08) messages are sent from **V**ISTA, the AAC will do the following.

- Accept the message.
  At this stage the message may reject for reasons unrelated to its content or format (system down, missing MSH segment, etc). Austin will not generate an ACK message. The sending application will be responsible for retransmitting messages that are not acknowledged.

- Pass it on to the receiving application, which performs one of the following functions.

  - Processes the message successfully, generating a response message with a value of **AA** in *MSA-1-acknowledgment code.*
  - **–OR–** sends an error response, providing error information in segments in the response message (see 1.2) with a value of **AE** in *MSA-1-acknowledgment code.*

- Pass the response message back to the **V**ISTA originating site.

1.2 Message Control Segments

This section describes the message control segments that are contained in the general acknowledgement response message.

ACK	General Acknowledgment	Section
MSH	Message Header	1.2.1
MSA	Message Acknowledgment	1.2.2
[ERR]	Error	1.2.3

- When a PCMM HL7 (ADT~A08) message is successfully accepted by the receiving system, the optional Error (ERR) segment will not be returned to the sending system in the general acknowledgement message.

- When a PCMM HL7 (ADT~A08) message is rejected by the receiving system, the Error (ERR) segment is a repeating field and will contain the error and location of each error identified. Each repeating field will be in the following format.

Components: ^<sequence (NM)>^<field position (NM)>^<code identifying error (CE)>

The 1st component identifies the segment ID.
The 2nd component is an index if there is more than one segment of type .
The 3rd component is the error's field position within the segment.
The 4th component is the error code from the user-defined PCMM Error Code table.

1.2.1 MSH - Message Header Segment

SEQ	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	*VISTA* DESCRIPTION
1	1	ST	R			Field Separator	Recommended value is ^ (caret)
2	4	ST	R			Encoding Characters	Recommended delimiter values: Component = ~ (tilde) Repeat = | (bar) Escape = \ (back slash) Sub-component = **&** (ampersand)
3	15	ST				Sending Application	NPCD-AAC
4	20	ST				Sending Facility	Facility=200
5	30	ST				Receiving Application	PCMM-212
6	30	ST				Receiving Facility	Station's facility number
7	26	TS				Date/Time Of Message	Date and time message was created
8	40	ST				Security	Not used
9	7	CM	R		0076 0003	Message Type	2 Components 1. *Refer to Table 0076* 2. *Refer to Table 0003*
10	20	ST	R			Message Control ID	Automatically generated by **VISTA** HL7 Package
11	1	ID	R		0103	Processing ID	**P** (production)
12	8	ID	R		0104	Version ID	**2.2** (Version 2.2)
13	15	NM				Sequence Number	Not used
14	180	ST				Continuation Pointer	Not used
15	2	ID			0155	Accept Acknowledgment Type	**NE** (never acknowledge)
16	2	ID			0155	Application Acknowledgment Type	**AL** (always acknowledge)
17	2	ID				Country Code	Not used

1.2.2 MSA Message Acknowledgment Segment

SEQ	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	VISTA DESCRIPTION
1	2	ID	R		0008	Acknowledgment Code	Refer to Table 008
2	20	ST	R			Message Control ID	Message Control ID of the message being acknowledged.
3	80	ST	R			Text Message	Not used
4	15	NM				Expected Sequence Number	Not used
5	1	ID			0102	Delayed Acknowledgment Type	Not used
6	100	CE				Error Condition	Not used

1.2.3 ERR Error Segment

SEQ	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	VISTA DESCRIPTION
1	80	CM	R	Y		Error Code and Location	Segment ID (ST) Sequence (NM) 4 numbers long. Strip off leading zeros on **VISTA** side. Field position (NM) Code identifying error (CE) (See PCMM Error Code Table (section 1.4.2))

1.2.4 ZPC VA Specific - Primary Care Information Segment

SEQ	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	V*ISTA* DESCRIPTION
1	20	ST	R			Provider Assignment ID	Facility – number Example: 500-234 Where: 500 = Facility number 234 = Pointer to full ID in PCMM HL7 ID file (404.49).
2	90	XCN	R			Provider ID	<u>14 Components</u> 1. <u>2 Sub-Components</u> 1.1. Pointer to entry in NEW PERSON file (#200) 1.2. Facility Number 2. Not used 3. Not used 4. Not used 5. Not used 6. Not used 7. Not used 8. This will always be **VA200** (NEW PERSON file) 9. Not used 10. Not used 11. Not used 12. Not used 13. Not used 14. Not used
3	26	TS	R			Date Provider Assigned	File POSITION ASSIGNMENT HISTORY (404.52), field **.02** –or- PRECEPTOR ASSIGNMENT HISTORY (404.53), field **.02**.
4	26	TS	O			Date Provider Unassigned	Date is derived from STATUS field (**.04**) in both POSITION ASSIGNMENT HISTORY (**404.52**), and PRECEPTOR ASSIGNMENT HISTORY (**404.53**).
5	3	ID	R			Provider Type Code	PCP = Primary Care Provider AP = Associate Provider
6	20	CE	O			Provider Person Class	<u>3 Components</u> 1. Provider Type Code 2. Not used 3. This will always be **VA8932.1** (PERSON CLASS file)
7	4	SI	R			Set ID*	This field is used to sequentially number multiple Primary Care (ZPC) segments.

* = New field added

1.3 Specific Transaction Examples

The following section describes specific HL7 transactions that will occur between PCMM (**V***IST***A**) and the AAC.

1.3.1 General Acknowledgment (ACK) message advising of a successful PCMM HL7 (ADT~A08) transmission at the Application Level.

PCMM HL7 (ADT~A08) message is sent from **V***IST***A** to the AAC.

```
MSH^~|\&^PCMM-210^500^NPCD-AAC^200^20000307150556^^ADT~A08^02651^P^2.2^^^NE^AL^USA

EVN^A08^20000307

PID^1^""^7168987~1~M10^6221^TEST~PATIENT^""^19330303^U^^7^""~""~""~""~""~~~""~""^^""^""
^^U^29^^443366221^^^^^^^^^^

ZPC^500-509^70&500~~~~~~~VA200~~~~~~^19961203^19961203^PCP^""^1

ZPC^500-510^123456852&500~~~~~~~VA200~~~~~~^19961204^19961211^PCP^""^2

ZPC^500-511^170&500~~~~~~~VA200~~~~~~^19970317^19970318^PCP^""^3
```

AAC then sends a General Acknowledgment (ACK) message back to **V***IST***A** advising of a successful PCMM HL7 (ADT~A08) transmission.

```
MSH^~|\&^NPCD-AAC^200^PCMM-210^500^20000229^^ACK~A08^50002175^P^2.2^^^NE^AL

MSA^AA^02651
```

1.3.2 General Acknowledgment (ACK) message advising of a failed PCMM HL7 (ADT~A08) transmission at the Application Level.

PCMM HL7 (ADT~A08) message is sent from **V**_IST_**A** to the AAC with *ZPC~3~date provider assigned* invalid in both the 2nd and 3rd ZPC segments.

```
MSH^~|\&^PCMM-210^500^NPCD-AAC^200^20000307150556^^ADT~A08^02651^P^2.2^^^NE^AL^USA

EVN^A08^20000307

PID^1^""^7168987~1~M10^6221^TEST~PATIENT^""^19330303^U^^7^""~""~""~""~""~~~""~""^^""^""^^U^29^^443366221^^^^^^^^^^

ZPC^500-509^70&500~~~~~~~VA200~~~~~~~^19961203^19961203^PCP^""^1

ZPC^500-510^123456852&500~~~~~~~VA200~~~~~~~^##19961204^19961211^PCP^""^2

ZPC^500-511^170&500~~~~~~~VA200~~~~~~~^9970317^19970318^PCP^""^3
```

AAC then sends a General Acknowledgment (ACK) message back to **V**_IST_**A** advising of a failed PCMM HL7 (ADT~A08) transmission.

```
MSH^~|\&^NPCD-AAC^200^PCMM-210^500^20000229^^ACK~A08^50002175^P^2.2^^^NE^AL

MSA^AE^02651

ERR^ZPC~0002~3~320M|ZPC~0003~3~320M
```

1.4 Supported and User Defined Tables

1.4.1 Table 008 Acknowledgement Code

Value	Description
AA	Original mode: Application Accept Enhanced mode: Application Acknowledgment: Accept
AE	Original mode: Application Error Enhanced mode: Application Acknowledgment: Error
AR	Original mode: Application Reject Enhanced mode: Application Acknowledgment: Reject
CA	Enhanced mode: Accept Acknowledgment: Commit Accept
CE	Enhanced mode: Accept Acknowledgment: Commit Error
CR	Enhanced mode: Accept Acknowledgment: Commit Reject

1.4.2 PCMM Error Code Table

Error Number	Field Number	Edit Description
000 Series		
Miscellaneous		
0000		
001M	Segment Name	EVN Segment missing
002M	Segment Name	PID Segment missing
003M	Segment Name	ZPC Segment missing
005M	Segment Name	Invalid Segment name
100 Series		
EVN Segment		
104M	Event Date	Required. Must be a valid date. Must be less than or equal to processing date.
106M	Event Time	If present time must be numeric. Must be a valid time.
110M	MSH Message Control ID	Required
113M	Event Type Segment	Required. Must be 'A08'.
200 Series		
PID Segment		
200M	Patient Name	Required. Must be alphanumeric. Must not be all numeric. Must not be all blanks.
210M	Patient ID (Internal)	Required. Must be numeric.
220M	Date of Birth	Required
221M	Date of Birth	Required. Century/Year must be numeric and less than the processing Century/Year.
223M	Date of Birth	Required. Must be a valid date.
224M	Date of Birth	Required. Must be less than the processing date.
230M	Sex	Must be blank or match table. (Refer to table T0001).
240M	Race	Must be a valid code. (Refer to table VA07) or null.
250M	Marital Status	Must be a valid code. (Refer to table T0002).
260M	State	Must be a valid state code. (Refer to table AA015).
261M	County	Must be blank or when combined with numeric state code must be a valid code. (Refer to table AA015).

1.4.2 PCMM Error Code Table, cont.

Error Number	Field Name	Edit Description
262M	Address Line 1	Must not be all numerics
263M	Address Line 2	Must not be all numerics
264M	Address - City	Must be alphanumeric. Must not be all numeric.
270M	Religion	Must be blank or a valid code. (Refer to table VA08).
280M	Address - Zip Code	Must be numeric. First five digits must not be all zeros. If last four digits exist, them must be numeric.
290M	Social Security Number	Required. Must be numeric. Must be greater than zeros.
291M	Social Security Number	Required. Last byte must be 'P' or blank.
300 Series		
ZPC Segment		
Updates		
300M	Provider Assignment ID	Required. Must be a valid station number followed by a dash then all numerics.
310M	Provider ID	Required. Must be numeric ID followed by a valid facility number.
320M	Date Provider Assigned	Required. Must be a valid date and can be a future date.
330M	Date Provider Unassigned	Optional
340M	Provider Type Code	Required. Must be 'PCP' or 'AP'.
350M	Provider Person Class (seq 6 comp1)	Optional. If present the Provider Type Code must be a valid Practitioner Type Code (table T0133).
360M	Provider Person Class (seq 6 comp 2)	Required. Must be VA8932.1
370M	Provider SSN	Required. SSN not numeric or all zeros.

1.4.2 PCMM Error Code Table, cont.

Error Number	Field Number	Edit Description
ZPC Segment		
Deletes		
300M	Provider Assignment ID	Required. Must be a valid station number followed by a dash then all numerics.
	Provider ID	Will be null
3	Date Provider Assigned	Will be null
3	Date Provider Unassigned	Will be null
3	Provider Type Code	Will be null
3	Provider Person Class (seq 6 comp1)	Will be null
360M	Provider Person Class (seq 6 comp 2)	Will be null