

Volume

2

MICRO-OFFICE SYSTEMS, INC.

MicroMD HL7 Export Specification

HL7 Interface Documentation

MICROMD HL7 EXPORT SPECIFICATION

HL7 Interface Documentation

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Last Update: November 9, 2007

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Chapter 1: Introduction

The MicroMD HL7 Standard Export supports communications by both socket and by file. This document describes the message types coming out of MicroMD along with the detailed specifications on each of the segments within the message.

<i>Message Type</i>	<i>Description</i>
A04	Create Patient
A08	Update Patient
S12	Appointment Booking
S14	Appointment Modification
S15	Appointment Cancellation
M02	Master File Update

The following information is configurable by the interface:

- 1) The various component separators
- 2) The MSH sending application / facility and receiving application / facility
- 3) Whether or not empty strings in MicroMD come out as double-quotes or null values in the HL7 message.

Usage:

A: always sent by interface

S: sent by interface when defined in MicroMD

N: never sent by interface

MSH

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Field Separator	Interface-defined	A	
2	Encoding Characters	Interface-defined	A	
3	Sending Application	Interface-defined	S	
4	Sending Facility	Interface-defined	S	
5	Receiving Application	Interface-defined	S	
6	Receiving Facility	Interface-defined	S	
7	Date-Time of Message	Current timestamp	A	
8	Security		N	
9	Message Type	Message type ^ event type	A	
10	Message Control ID	Unique message ID	A	
11	Processing ID / Processing Mode	Interface-defined	A	D=Debug / P=Production / T=Testing (blank)=Current I=Initial A=Archive R=Restore
12	Version ID	2.3	A	
13	Sequence #		N	
14	Continuation Pointer		N	
15	Accept ACK Type		N	
16	App ACK Type		N	
17	Country Code		N	
18	Character Set		N	
19	Principal Language		N	

Chapter 2: ADT Messages

Message Types:

ADT^A04: Create patient

ADT^A08: Update patient

Although a patient can theoretically be deleted in MicroMD, this is considered a dangerous action, and so delete patient messages are NOT generated by the interface.

<i>Segment</i>	<i>Usage</i>	<i>Notes</i>
MSH	A	
EVN	A	
PID	A	Patient Information
PV1	A	Patient Visit. For ADT, has primary provider information
GT1	A	Guarantor Information
IN1	S	One for each active insurance policy
IN2	S	If IN1 has employer info

Segment Type: EVN

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Event Type Code	Same as MSH event type	A	
2	Recorded Date/Time	Date patient was created in MicroMD	A	
3	Date/Time Planned	Interface-defined	S	
4	Event Reason Code		N	Value '02' for Provox
5	Operator ID	1	A	
6	Event Occurred		N	

Segment Type: PID

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Set ID		N	
2	External ID	Interface-Defined	S	
3	Internal ID	Interface-Defined	S	Usually the MicroMD unique patient ID
4	Alternate Pat ID	Interface-Defined	S	
5	Patient Name	Last Name ^ First Name ^ Middle Initial ^ Generation ^ Title	A A S S S	
6	Mother's Maiden Nm		N	
7	Date of Birth	Date of Birth	S	
8	Sex	Gender	A	M=Male F=Female U=Unknown
9	Patient Alias		N	
10	Race	Race	A	See Table 0005
11	Patient Address	Address1 ^ Address2 ^ City ^ State ^ Zip	S	
12	Country Code		N	
13	Phone # - Home	Home Phone	S	
14	Phone # - Business	Work Phone	S	
15	Primary Language		N	
16	Marital Status		A	See Table 0002
17	Religion		N	
18	Patient Account #		A	Unique MicroMD Patient ID
19	SSN		S	Interface setting determines if there are dashes
20	Driver's License		N	
21	Mother's Identifier		N	
22	Ethnic Group		N	
23	Birth Place		N	
24	Multiple Birth Ind		N	
25	Birth Order		N	
26	Citizenship		N	
27	Veteran's Status		N	
28	Nationality		N	
29	Patient Death Date		S	Filled in if patient has died
30	Patient Death Ind		N	"Y" if patient died; otherwise, blank.

Segment Type: PV1

Note: For this segment, all fields not shown have usage 'N'

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
2	Patient Class	MicroMD Category ID (numeric)	A	
7	Attending Doctor	MicroMD Prov ID ^ Last Name ^ First Name ^ Middle Initial ^ Degree	S	A patient with no primary physician will have a MicroMD provider ID of 0.
8	Referring Doctor	MicroMD Ref Dr ID ^ Last Name ^ First Name ^ Middle Initial ^ Degree	S	If a patient has no assigned referring doctor, this entire field will be empty.
46	Current Patient Balance		A	

Segment Type: GT1

Note: For this segment, all fields not shown have usage 'N'

Field #	Name	Value	Usage	Notes
1	Set ID	1	A	
2	Guarantor #		S	MicroMD does not have a unique guarantor ID. If guarantor is in the patient table, this is the MicroMD unique patient ID for the guarantor. If the responsible party is NOT in the patient table, this is blank.
3	Guarantor Name	Last ^ First ^ Middle	A	
5	Guarantor Address	Address1 ^ Address2 ^ City ^ State ^ Zip	S	
6	Guarantor Home #		S	
7	Guarantor Work #		S	
8	Date of Birth		S	
9	Sex		A	M / F / U
11	Guar Relationship		A	S=Self M=Spouse P=Parent O=Other
12	Guar SSN		S	Interface setting determines if there are dashes
16	Guar Employer Name		S	Only if guarantor is patient and patient employer defined.
17	Guar Employer Add	Address1 ^ Address2 ^ City ^ State ^ Zip	S	
18	Guar Employer Phone		S	
51	Guar Employer Org		S	Same as GT1 field 16

Segment Type: IN1

Note: For this segment, all fields not shown have usage 'N'.

There will be an IN1 segment for each active policy in MicroMD plan set #1.

MicroMD stores primary, secondary, and tertiary insurance information, so there will be a maximum of three IN1 segments.

Field #	Name	Value	Usage	Notes
1	Set ID	1, 2, or 3	A	1=primary, 2=secondary
2	Insurance Plan ID	MicroMD plan ID ^ MicroMD plan name	A	
3	Ins Company ID	MicroMD plan ID OR MicroMD insurance class ID	A	Based on interface setting, fields 3 and 4 will either have plan info from field 2
4	Ins Company Name	MicroMD plan name OR MicroMD insurance class name	A	or insurance class information from MicroMD.
5	Ins Company Address	Address1 ^ Address2 ^ City ^ State ^ Zip	A	
6	Contact Person		S	
7	Ins Company Phone	Phone ^ ORN ^ PH	S	
8	Group Number		S	
12	Policy Start Date		S	
13	Policy End Date		S	
15	Plan Type	MicroMD Insurance Category ID	A	
16	Insured	Last ^ First ^ Middle	A	
17	Insured Relation to Patient		A	See Table 0063
18	Insured DOB		S	
19	Insured Address	Address1 ^ Address2 ^ City ^ State ^ Zip	S	
20	Assignment		A	Y/N
22	Coord Priority	1, 2, or 3	A	1=Primary 2=Secondary 3=Tertiary
35	Plan Code		S	
36	Policy Number		A	
37	Policy Deductible		S	Could be \$0.00 if unknown
43	Insured's Sex		S	M / F / U
44	Insured's Employer Address	Address1 ^ Address2 ^ City ^ State ^ Zip	S	
49	Insured ID	SSN	S	If insured party is the responsible party, this is the guarantor's SSN, if known. Interface setting determines if there are dashes.

Segment Type: IN2

Note: For this segment, all fields not shown have usage 'N'.

This will immediately follow each IN1 segment for which the policy has employer information.

Field #	Name	Value	Usage	Notes
2	Insured SSN	SSN	S	Same value as IN1-49
49	Employer Contact		S	
50	Employer Phone		S	
63	Insured's Phone – Home		S	
64	Insured's Phone – Work		S	
70	Insured's Employer Name		A	Usage 'A' since normally segment will not print if this is not defined.

Chapter 3: SIU Messages

Message Types:

SIU^S12: Appointment Booking

SIU^S14: Appointment Modification

SIU^S15: Appointment Cancellation

Note that SIU^S13 will not be generated by the system, since in general, a rescheduling in MicroMD will appear as a cancellation followed by a new booking.

<i>Segment</i>	<i>Usage</i>	<i>Notes</i>
MSH	A	
SCH	A	
NTE	S	
PID	S	If the appointment is a write-in appointment, no PID segment will be exported.
PV1	A	
RGS	A	
AIG	A	
AIL	S	If the practice has multiple locations.
AIP	A	

Appointment Unique ID

The appointment unique ID (SCH-1) will consist of five parts, each part being separated with a period. The five parts are:

- **Practice ID:** The MicroMD practice ID number.
- **Provider ID:** The MicroMD provider ID number.
- **Appt Date:** Formatted as YYYYMMDD
- **Time ID:** 1 = 12:00am, 2 = 12:05am, etc...
- **Slot Number:** For overbooking of slots. Will be 1, 2, or 3

For systems that cannot handle a unique ID this long, a shorter version can be used which omits the practice ID and puts the date in a shorter, though more cryptic, format.

Segment Type: SCH

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Placer Appt ID	Unique Appt ID	A	The interface can be set up to put the unique ID in field 1 or field 2.
2	Filler Appt ID		N	
3	Occurrence #		N	
4	Placer Group #		N	
5	Schedule ID		N	
6	Event Reason		N	
7	Appt Reason	Class ID ^ Class Name	A	The MicroMD appointment class ID and the associated class name.
8	Appt Type	Class ID	A	The interface can be customized to map this to alternate values.
9	Appt Duration	Length of appointment	A	In minutes
10	Appt Duration Units	“minutes”	A	
11	Appt Timing Qty	(see notes)	A	Part 3: “M” + duration Part 4: checkin or appt start time Part 5: checkout or appt end time
12	Placer Contact Person		N	
13	Placer Contact Phone		N	
14	Placer Contact Address		N	
15	Placer Contact Location		N	
16	Filler Contact Person	MicroMD user making booking / update / cancel	A	
17	Filler Contact Phone		N	
18	Filler Contact Address		N	
19	Filler Contact Location		N	
20	Entered by Person		N	
21	Entered by Phone		N	
22	Entered by Location		N	
23	Parent Placer Appt ID		N	
24	Parent Filler Appt ID		N	
25	Filler Status Code	Type of operation	A	BOOKED, CANCELLED, STARTED, COMPLETE

Segment Type: NTE

If the appointment has a note associated with it, the note will be exported as one or more NTE segments. Each line of the note in MicroMD will become a separate NTE segment.

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Set ID	1, 2, 3, etc...	A	Increments with each segment in the message.
2	Source of Comment		N	
3	Comment	The appointment comment line	A	

Segment Type: PID

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Set ID		N	
2	External ID	Interface-Defined	S	
3	Internal ID	Interface-Defined	S	Usually the MicroMD unique patient ID
4	Alternate Pat ID	Interface-Defined	S	
5	Patient Name	Last Name ^ First Name ^ Middle Initial ^ Generation ^ Title	A A S S S	
6	Mother's Maiden Nm		N	
7	Date of Birth	Date of Birth	S	
8	Sex	Gender	A	M=Male F=Female U=Unknown
9	Patient Alias		N	
10	Race	Race	A	See Table 0005
11	Patient Address	Address1 ^ Address2 ^ City ^ State ^ Zip	S	
12	Country Code		N	
13	Phone # - Home	Home Phone	S	
14	Phone # - Business	Work Phone	S	
15	Primary Language		N	
16	Marital Status		A	See Table 0002
17	Religion		N	
18	Patient Account #		A	Unique MicroMD Patient ID
19	SSN		S	Interface setting determines if there are dashes
20	Driver's License		N	
21	Mother's Identifier		N	
22	Ethnic Group		N	
23	Birth Place		N	
24	Multiple Birth Ind		N	
25	Birth Order		N	
26	Citizenship		N	
27	Veteran's Status		N	
28	Nationality		N	
29	Patient Death Date		S	Filled in if patient has died
30	Patient Death Ind		N	"Y" if patient died; otherwise, blank.

Segment Type: PV1

Note: For this segment, all fields not shown have usage 'N'

Field #	Name	Value	Usage	Notes
2	Patient Class	MicroMD Patient Category ID (numeric)	A	
3	Assigned Patient Location	MicroMD location ID (numeric)	A	Could be 0 if practice has only one location.
7	Attending Doctor	MicroMD Prov ID ^ Last Name ^ First Name ^ Middle Initial ^ Degree	S	The provider that the appointment is booked for.
46	Current Patient Balance		A	

Segment Type: RGS

Field #	Name	Value	Usage	Notes
1	Set ID	"1"	A	
2	Segment Action Code	"A"	A	A=Add, U=Update, D=Delete. Always A for this interface.
3	Resource Group ID		N	

Segment Type: AIG

Note: For this segment, all fields not shown have usage 'N'

Field #	Name	Value	Usage	Notes
1	Set ID	"1"	A	
3	Resource ID	Provider ID ^ Last name ^ First name ^ Middle Initial	A	The provider that the appointment is booked for.

Segment Type: AIL

Note: For this segment, all fields not shown have usage 'N'.

This segment is exported only when the practice has multiple locations.

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Set ID	"1"	A	
3	Location Resource ID	MicroMD location ID and MicroMD location name (see notes)	A	The location ID will be in components 1 & 4 of this field. The location name will be in component 9.

Segment Type: AIP

Note: For this segment, all fields not shown have usage 'N'.

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Set ID	"1"	A	
3	Personnel Resource ID	Provider ID ^ Last name ^ First name ^ Middle Initial	A	The provider that the appointment is booked for.
4	Resource Role	"Doctor"	A	

Chapter 4: MFN Messages - Referring Doctor

Message Types:

MFN^M02: Referring Doctor Export

<i>Segment</i>	<i>Usage</i>	<i>Notes</i>
MSH	A	
MFI	A	
MFE	A	
STF	A	
PRA	S	There may be 0, 1, or 2 PRA segments in the message, depending on whether or not the UPIN and Tax ID for the referring doctor are specified. A PRA segment will be sent for each of the defined values.

Segment Type: MFI

Note: For this segment, all fields not shown have usage 'N'.

Field #	Name	Value	Usage	Notes
1	Master File Identifier	"REF"	A	In component 1

Segment Type: MFE

Field #	Name	Value	Usage	Notes
1	Record-level event code	See Notes	A	MAD: Add MUP: Update MDL: Delete
2	MFN Control ID		N	
3	Effective Date/Time		N	
4	Primary Key Value	MicroMD referring doctor ID (numeric)	A	

Segment Type: STF

Note: For this segment, all fields not shown have usage 'N'.

Field #	Name	Value	Usage	Notes
1	Primary Key Value	MicroMD referring doctor ID (numeric)	A	
2	Staff ID Code	MicroMD referring doctor ID (numeric)	A	
3	Staff Name	Last ^ First ^ Middle	A	
4	Staff Type	"R"	A	
7	Active/Inactive	"A"	A	
10	Phone	0 or more repetitions with the phone number in component 1 and ID information in components 2 & 3. See notes.	S	Components 2 & 3 identify the type of phone number. Values are: WPN^PH: Work phone WPN^FX: Work fax EMR^CP: Cell phone BPN^BP: Beeper If there is an e-mail address, it will appear in component 4 of the WPN^PH repetition as well as field 15.
11	Office Address	Address1 ^ Address2 ^ City ^ State ^ Zip	S	
15	E-Mail Address		S	

Segment Type: PRA

<i>Field #</i>	<i>Name</i>	<i>Value</i>	<i>Usage</i>	<i>Notes</i>
1	Primary Key Value	The value from MFE-4, which in this case is the referring doctor ID (numeric)	A	
2	Practitioner Group		N	
3	Practitioner Category		N	
4	Provider Billing		N	
5	Specialty		N	
6	Practitioner ID Numbers	ID ^ [ID Type]	A	[ID Type] will be either "UPIN" if the ID is a UPIN # or "TAX" if the ID is a Tax ID / SSN.
7	Privileges		N	
8	Date Entered Practice		N	

Chapter 5: MFN Messages - Plan

THIS MESSAGE HAS BEEN DEVELOPED BY MICRO-OFFICE SYSTEMS FOR USE IN THE MICROMD HL7 EXPORT INTERFACE AS IT NOT ADHERENT TO HL7 STANDARDS.

Message Types:

MFN^M02: Insurance Plan Export

<i>Segment</i>	<i>Usage</i>	<i>Notes</i>
MSH	A	
MFI	A	
MFE	A	
IN1	A	

Segment Type: MFI

Note: For this segment, all fields not shown have usage 'N'.

Field #	Name	Value	Usage	Notes
1	Master File Identifier	"PLN"	A	In component 1

Segment Type: MFE

Field #	Name	Value	Usage	Notes
1	Record-level event code	See Notes	A	MAD: Add MUP: Update MDL: Delete
2	MFN Control ID		N	
3	Effective Date/Time		N	
4	Primary Key Value	MicroMD plan ID	A	

Segment Type: IN1

Note: For this segment, all fields not shown have usage 'N'.

Field #	Name	Value	Usage	Notes
1	Set ID	"1"	A	
2	Insurance Plan ID	MicroMD plan ID ^ MicroMD plan name	A	
3	Ins Company ID	MicroMD plan ID OR MicroMD insurance class ID	A	Based on interface setting, fields 3 and 4 will either have plan info from field 2
4	Ins Company Name	MicroMD plan name OR MicroMD insurance class name	A	or insurance class information from MicroMD.
5	Ins Company Address	Address1 ^ Address2 ^ City ^ State ^ Zip	A	
6	Contact Person		S	
7	Ins Company Phone	Phone ^ ORN ^ PH	S	
8	Group Number		S	
15	Plan Type	MicroMD Insurance Category ID	A	
35	Plan Code		S	

Appendix A: HL7 Tables

Table 0002: Marital Status

<i>Code</i>	<i>Description</i>
M	Married
S	Single
D	Divorced
W	Widowed
X	Legally Separated
U	Unknown

Table 0005: Race

<i>Code</i>	<i>Description</i>
A	Asian
P	Native Hawaiian
O	Other
B	Black
N	Native American
M	Alaska Native
W	White
H	Hispanic
U	Unknown

Table 0063: Relation

<i>Code</i>	<i>Description</i>
01	Self
02	Spouse
03	Natural Child
04	Child / No Financial Responsibility
05	Step Child
06	Foster Child
07	Ward of the Court
08	Employee
09	Unknown
10	Handicapped Dependent
11	Organ Donor
12	Cadaver Donor
13	Grandchild
14	Niece / Nephew
15	Injured Plaintiff
16	Sponsored Dependent
17	Minor Dependent of Minor
18	Parent
19	Grandparent
29	Significant Other
53	Life Partner