



Understanding 837 5010 Files

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What is an 837 File?

- An 837 file is an electronic file that contains patient claim information. This file is submitted to an insurance company or to a clearinghouse instead of printing and mailing a paper claim.
 - The data in an 837 file is called a Transaction Set.
 - File must be sent to the payer or clearinghouse via a secure method due to patient health information within the file.
- Formats
 - 837P (professional) crosses over to the CMS-1500 paper form
 - 837I (institutional) crosses over to the UB-04 paper form
 - 837D (dental) crosses over to the ADA-2012 paper form
- 837 files are broken down into loops, segments and elements
 - Each loop, segment and element contains specific information
 - Header – Beginning of the file
 - Billing Provider Detail
 - Subscriber Detail
 - Patient Detail
 - Claim Detail
 - Ending Trailer - End of the File

Transaction Set Terminology

Implementation Guide Terms	Location in 837 Transaction Set
1. Header a. Header: start segment for transaction set	ISA*00* *00* *ZZ*903314521 *ZZ*NMMAD 0402020823*U*00401*000100073*1*P*: GS*HC*903314521*NMMAD*20040202*0823*100073*X*004010X096A1 ST*837*0001
2. Data Element a. Smallest named item in ASC X12 standard b. Corresponds to data field c. Mandatory or situational	BHT*0019*00*100073*20040202*0823*CH REF*87*004010X096A1 NM1*41*2*UNSPECIFIED SERVICE UNIT*****46 PER*IC*BUSINESS OFFICE*TE NM1*40*28NM MEDICAID*****46*NMMAD
3. Data Segment a. Related data elements b. Sequence of data elements specified by ASC X12N standard c. Corresponds to record	HL*1**20*1 PRV*BI*ZZ*261QP0904X NM1*85*2*UNSPECIFIED SERVICE UNIT*****24*903314521 N3*123 ABC ST N4*OCEAN*NM*33333 REF*1D*XYZ789 NM1*87*2*ALBUQUERQUE ADMINISTRATION*****24*850105601 N3*PO BOX 31001-0655 N4*PASADENA*CA*911100655 HL*2*1*22*0
4. Control Segment a. Same structure as segment b. Uses i. To transfer control information (e.g., start, stop) rather than application information ii. To group data elements	SBR*P*18*****MC NM1*IL*1*STEELE*DANIELLE***MI*555551010 N3*100 VALLEY RD N4*ZIA*NM*33333 DMG*D8*19880501*F NM1*PR*2*NM MEDICAID*****PI*NMMAD
5. Delimiter a. Character used to separate two data elements or to end a data segment b. An integral part of data	CLM*45404A-JSU-99091*206.00***13:A:1*Y*A*Y*Y*****Y DTP*434*RD8*20030510-20030510 AMT*C5*206.00 REF*EA*99091
6. Loop a. Group of related segments b. Loops specified by Implementation Guide	HT*RR*486 QTY*CA*1*DA NM1*71*1*SMITH*USER*****24*903314521 PRV*AT*ZZ*208D00000X REF*1D*000011
7. Transaction Set (whole thing) a. Contains data segments b. Corresponds to grouping of data records c. Sequence of data segments specified by ASC X12N standard	LX*1 SV2*0519**206.00*UN*1 DTP*472*D8*20030510 SE*35*0001 GE*1*100073 IEA*1*000100073
8. Trailer a. Trailer: end segment for transaction set	



Implementation Guides

- Implementation guides define the structure and content of an 837 file / transaction set.
- Each 837 format has its own implementation guide (837P, 837I, 837D).
- Guides can be purchased from Washington Publishing Company:
 - <http://www.wpc-edi.com/>
- Clearinghouses and/or individual payers often require certain segments be populated with specific data. Those requirements are found in the clearinghouse/payer companion guides.



Implementation Guide: Transaction Set Listing

Each implementation guide provides a summary list of loops and segments.

005010X222 • 837		ASC X12N • INSURANCE SUBCOMMITTEE TECHNICAL REPORT • TYPE				
IMPLEMENTATION						
837 Health Care Claim: Professional						
Table 1 - Header						
PAGE #	POS. #	SEG. ID	NAME	USAGE	REPEAT	LOOP REPEAT
70	0050	ST	Transaction Set Header	R	1	
71	0100	BHT	Beginning of Hierarchical Transaction	R	1	
LOOP ID - 1000A SUBMITTER NAME						1
74	0200	NM1	Submitter Name	R	1	
76	0450	PER	Submitter EDI Contact Information	R	2	
LOOP ID - 1000B RECEIVER NAME						1
79	0200	NM1	Receiver Name	R	1	
Table 2 - Billing Provider Detail						
PAGE #	POS. #	SEG. ID	NAME	USAGE	REPEAT	LOOP REPEAT
LOOP ID - 2000A BILLING PROVIDER HIERARCHICAL LEVEL						>1
81	0010	HL	Billing Provider Hierarchical Level	R	1	
83	0030	PRV	Billing Provider Specialty Information	S	1	
84	0100	CUR	Foreign Currency Information	S	1	
LOOP ID - 2010AA BILLING PROVIDER NAME						1
87	0150	NM1	Billing Provider Name	R	1	
91	0250	N3	Billing Provider Address	R	1	
92	0300	N4	Billing Provider City, State, ZIP Code	R	1	
94	0350	REF	Billing Provider Tax Identification	R	1	
96	0350	REF	Billing Provider UPIN/License Information	S	2	
98	0400	PER	Billing Provider Contact Information	S	2	
LOOP ID - 2010AB PAY-TO ADDRESS NAME						1
101	0150	NM1	Pay-to Address Name	S	1	
103	0250	N3	Pay-to Address - ADDRESS	R	1	
104	0300	N4	Pay-To Address City, State, ZIP Code	R	1	
LOOP ID - 2010AC PAY-TO PLAN NAME						1
106	0150	NM1	Pay-To Plan Name	S	1	
108	0250	N3	Pay-to Plan Address	R	1	
109	0300	N4	Pay-To Plan City, State, ZIP Code	R	1	
111	0350	REF	Pay-to Plan Secondary Identification	S	1	
113	0350	REF	Pay-To Plan Tax Identification Number	R	1	



Implementation Guide: Segment Detail

Details for each segment and element are provided, along with an example of what the segment looks like in a file.

ASC X12N • INSURANCE SUBCOMMITTEE
TECHNICAL REPORT • TYPE 3

005010X222 • 837 • 2010CA • NM1
PATIENT NAME

SEGMENT DETAIL

NM1 - PATIENT NAME

X12 Segment Name: Individual or Organizational Name

X12 Purpose: To supply the full name of an individual or organizational entity

X12 Set Notes: 1. Loop 2010 contains information about entities that apply to all claims in loop 2300. For example, these entities may include billing provider, pay-to provider, insurer, primary administrator, contract holder, or claimant.

X12 Syntax:

- P0809
If either NM108 or NM109 is present, then the other is required.
- C1110
If NM111 is present, then NM110 is required.
- C1203
If NM112 is present, then NM103 is required.

Loop: 2010CA — PATIENT NAME Loop Repeat: 1

Segment Repeat: 1

Usage: REQUIRED

TR3 Example: NM1*QC*1*DOE*SALLY*J~

DIAGRAM

NM1 * [NM101 98 Entity ID Code M 1 ID 2/3] * [NM102 1065 Entity Type Qualifier M 1 ID 1/1] * [NM103 1035 Name Last/Org Name X 1 AN 1/60] * [NM104 1036 Name First O 1 AN 1/35] * [NM105 1037 Name Middle O 1 AN 1/25] * [NM106 1038 Name Prefix O 1 AN 1/10]

* [NM107 1039 Name Suffix O 1 AN 1/10] * [NM108 66 ID-Code Qualifier X 1 ID 1/2] * [NM109 67 ID Code X 1 AN 2/80] * [NM110 706 Entity Relat-Code X 1 ID 2/2] * [NM111 98 Entity-ID Code O 1 ID 2/3] * [NM112 1035 Name-Last/Org-Name O 1 AN 1/60] ~

ELEMENT DETAIL

USAGE	REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
REQUIRED	NM101	98	Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual	M 1 ID 2/3
			CODE	DEFINITION
			QC	Patient
REQUIRED	NM102	1065	Entity Type Qualifier Code qualifying the type of entity	M 1 ID 1/1
			SEMANTIC: NM102 qualifies NM103.	
			CODE	DEFINITION
			1	Person



Viewing an 837 File

Open the file with Microsoft Word.

The data wraps in one continuous line, making it difficult to pick out the different segments.

Separating the data by segment allows for easier viewing.

```
ISA*00*          *00*          *ZZ*40225          *30*20356
*151228*1325*^*00501*000100141*1*P*::~~GS*HC*11044*20356*20151228*1325*1001
41*X*005010X222A1~ST*837*0001*005010X222A1~BHT*0019*00*100141*20151228*13
25*CH~NM1*41*2*2011 DEMO HOSPITAL*****46~PER*IC*BUSINESS
OFFICE*TE*5052481111~NM1*40*2*NATIONAL INDEMNITY CO
GRP*****46*263856~HL*1**20*1~NM1*85*2*2011 DEMO
HOSPITAL*****XX*8888888888~N3*5300 HOMESTEAD RD
NE~N4*ALB*NM*87110~REF*EI~REF*OB~HL*2*1*22*0~SBR*P*18**UNKNOWN*****CI~NM1
*IL*1*WEATHERS*STORMY***MI*54879658~N3*2211 TRAMWAY NE APT
2~N4*ALBUQUERQUE*NM*87101~DMG*D8*19700612*F~NM1*PR*2*NATIONAL INDEMNITY
CO GRP*****PI*263856~CLM*102644B~DH-
120114*188.00***11:B:1*Y*A*Y*Y~REF*EA*120114~HI*ABK:R079~NM1*82*1*GREENE*
M****XX*1083610646~PRV*PE*PXC*363L00000X~SBR*S*18**UNKNOWN*****CI~OI****Y*
**Y~NM1*IL*1*WEATHERS*STORMY***MI*123456789~N3*2211 TRAMWAY NE APT
2~N4*ALBUQUERQUE*NM*87101~NM1*PR*2*GOVERNMENT EMPLOYEES HOSP
ASSN*****PI*99999~N3*PO BOX
4665~N4*INDEPENDENCE*MO*640514665~SBR*T*18*****MA~OI****Y****Y~NM1*IL*1*W
EATHERS*STORMY***MI*452115544A~N3*2211 TRAMWAY NE APT
2~N4*ALBUQUERQUE*NM*87101~NM1*PR*2*MEDICARE*****PI*S03034~N3*P.O. BOX
833913~N4*RICHRDSON*TX*750836913~LX*1~SV1*HC:99214*188.00*UN*1***1~DTP*47
2*D8*20151208~REF*6R*000000036367270001~SE*44*0001~ST*837*0002*005010X222
A1~BHT*0019*00*100141*20151228*1325*CH~NM1*41*2*2011 DEMO
HOSPITAL*****46~PER*IC*BUSINESS OFFICE*TE*5052481111~NM1*40*2*NATIONAL
INDEMNITY CO GRP*****46*263856~HL*1**20*1~NM1*85*2*2011 DEMO
HOSPITAL*****XX*8888888888~N3*5300 HOMESTEAD RD
NE~N4*ALB*NM*87110~REF*EI~REF*OB~HL*2*1*22*0~SBR*P*18**UNKNOWN*****CI~NM1
*IL*1*WEATHERS*STORMY***MI*54879658~N3*2211 TRAMWAY NE APT
2~N4*ALBUQUERQUE*NM*87101~DMG*D8*19700612*F~NM1*PR*2*NATIONAL INDEMNITY
CO GRP*****PI*263856~CLM*102562C~CRT-
102551*72.00***22:B:1*Y*A*Y*Y~REF*EA*102551~HI*ABK:Z00129~NM1*82*1*GREENE
*M****XX*1083610646~PRV*PE*PXC*363L00000X~NM1*77*2*CHEY RIV SIOUX TRB FLD
HLTH CL*****XX*859999999~N3*4700 LINCOLN
NE~N4*ALBUQUERQUE*NM*87107~SBR*S*18*****MC~OI****Y****Y~NM1*IL*1*WEATHERS
*STORMY***MI*54879658~N3*2211 TRAMWAY NE APT
2~N4*ALBUQUERQUE*NM*87101~NM1*PR*2*NEW MEXICO
MEDICAID*****PI*45781~SBR*T*18**UNKNOWN*****CI~OI****Y****Y~NM1*IL*1*WEATHE
RS*STORMY***MI*123456789~N3*2211 TRAMWAY NE APT
2~N4*ALBUQUERQUE*NM*87101~NM1*PR*2*GOVERNMENT EMPLOYEES HOSP
ASSN*****PI*99999~N3*PO BOX
```


Using a Macro to Separate the Data

- A macro is a tool that in Microsoft Word that can be used to separate the data in an 837 file so that each segment is on one line, making the file easier to read.
- A macro only needs to be set up once and will work with all 837 export modes (837D, 837I, 837P).
- To find out if you already have a macro set up for separating the data in a file:
 - Open an 837 file using Microsoft Word
 - Press **CTRL** and tilde (~) at the same time
 - If the data does not realign, a macro has not been set up yet.



Setting up a Macro

Open an 837 file using Word, then follow the next four steps.

1. Click the **View** tab.
 - a. Click **Macros**, then click **Record Macro**.
 - b. Click the Keyboard icon.
 - c. Find the **Press New Shortcut Key** box. Click that box, then press **Ctrl** and tilde (~) at the same time.
 - d. Click **Assign**.
 - e. Click **Close**.
2. Press **Ctrl** and **H** at the same time to access the **Find and Replace** option.



Setting up a Macro (cont.)

3. Click the **Replace** tab.
 - a. In the **Find What** box, type a tilde (~).
 - b. Click the **Replace With** box and type a tilde (~).
 - c. Click **More**.
 - d. Click the **Special** button, then click **Manual Line Break**.
 - e. Click the **Replace All** button.
 - f. Click **OK** and close the box.

3. Click the **View** tab.
 - a. Click **Macros**, then click **Stop Recording**.
 - b. Creating the macro is complete.

Note: The next time you open an 837 file, press **CTRL** and tilde (~) at the same time and the file will automatically be realigned.



Example of a Separated File

This is what the file will look like after it's been separated.

Segments are easy to identify, and most will fit on one line.

```
ISA*00*                *00*                *ZZ*40225                *30*20356
*151228*1325**^*00501*000100141*1*P*:~
GS*HC*11044*20356*20151228*1325*100141*X*005010X222A1~
ST*837*0001*005010X222A1~
BHT*0019*00*100141*20151228*1325*CH~
NM1*41*2*2011 DEMO HOSPITAL*****46~
PER*IC*BUSINESS OFFICE*TE*5052481111~
NM1*40*2*NATIONAL INDEMNITY CO GRP*****46*263856~
HL*1**20*1~
NM1*85*2*2011 DEMO HOSPITAL*****XX*8888888888~
N3*5300 HOMESTEAD RD NE~
N4*ALB*NM*87110~
REF*EI~|
REF*0B~
HL*2*1*22*0~
SBR*P*18**UNKNOWN*****CI~
NM1*IL*1*WEATHERS*STORMY****MI*54879658~
N3*2211 TRAMWAY NE APT 2~
N4*ALBUQUERQUE*NM*87101~
DMG*D8*19700612*F~
NM1*PR*2*NATIONAL INDEMNITY CO GRP*****PI*263856~
CLM*102644B-DH-120114*188.00***11:B:1*Y*A*Y*Y~
REF*EA*120114~
HI*ABK:R079~
NM1*82*1*GREENE*M****XX*1083610646~
PRV*PE*PXC*363L00000X~
```



Reading a File: Loops

- Loops contain segments, segments contain elements, and elements contain data.
- Below are some common loops and how they are populated.

```
ISA*00*      *00*      *ZZ*85-0858585  *ZZ*      *130709*1058*^*00501*000101654*1*P*:~
GS*HC*85-0858585**20130709*1058*101654*X*005010X222A1~
ST*837*0001*005010X222A1~
BHT*0019*00*101654*20130709*1058*CH~
NM1*41*2*INDIAN HEALTH HOSPITAL*****46~           ← Loop 1000A Submitter Name

PER*IC*BUSINESS OFFICE*TE*5052484349~
NM1*40*2*IOWA MEDICAID*****46~                   ← Loop 1000B Receiver Name

HL*1**20*1~
NM1*85*2*INDIAN HEALTH HOSPITAL*****XX*7745613100~ ← Loop 2010AA Billing Provider

N3*5987 4TH ST NE~
N4*ALBUQUERQUE*NM*871201234~
REF*EI*850858585~
HL*2*1*22*0~
SBR*P*18*****MC~
NM1*IL*1*APPLE*GOLDEN***MI*5871547845198874157~    ← Loop 2000B Subscriber Information

N3*2365 PARKWAY PLACE~
N4*ALBUQUERQUE*NM*87110~
DMG*D8*19420916*F~
NM1*PR*2*IOWA MEDICAID*****PI*99999~             ← Loop 2010BB Payer Name

CLM*31978A-IHH-123987*187.00***22:B:1*Y*A*Y*Y~
REF*EA*123987~
HI*BK:25000~
NM1*82*1*ALEXIS*ALEXANDRA***XX*3310213467~       ← Loop 2420A Rendering Provider

PRV*PE*PXC*208D00000X~
```



Reading a File: Segments

- Segments contain elements.
- Each segment will be different depending on the loop the segment is in.

```
ISA*00*          *00*          *ZZ*85-0858585      *ZZ*
*130709*1058*^*00501*000101654*1*P*::~~
GS*HC*85-0858585**20130709*1058*101654*X*005010X222A1~
ST*837*0001*005010X222A1~
BHT*0019*00*101654*20130709*1058*CH~
NM1*41*2*INDIAN HEALTH HOSPITAL*****46~
PER*IC*BUSINESS OFFICE*TE*5052484349~
NM1*40*2*IOWA MEDICAID*****46~
HL*1**20*1~
NM1*85*2*INDIAN HEALTH HOSPITAL*****XX*7745613100~
N3*5987 4TH ST NE~
N4*ALBUQUERQUE*NM*871201234~
REF*EI*850858585~
HL*2*1*22*0~
SBR*P*18*****MC~
NM1*IL*1*APPLE*GOLDEN*****MI*5871547845198874157~
N3*2365 PARKWAY PLACE~
N4*ALBUQUERQUE*NM*87110~
DMG*D8*19420916*F~
NM1*PR*2*IOWA MEDICAID*****PI*99999~
CLM*31978A-IHH-123987*187.00***22:B:1*Y*A*Y*Y~
REF*EA*123987~
HI*BK:25000~
NM1*82*1*ALEXIS*ALEXANDRA*****XX*3310213467~
PRV*PE*PXC*208D00000X~
```



Reading a File: Data Elements

- Data elements contain the same claim information that prints on paper claims.
- To find a data element:
 - Locate the desired loop and segment.
 - Count the data elements starting with 01. **Do not** count the data segment name.
 - For example, the first line in the example below is the ISA segment. The first '00' is the ISA01 segment, the next data element is the ISA02, the next '00' is the ISA03 and so on.
 - Note that spaces may be included as part of the data element.

```
ISA*00*          *00*          *ZZ*85-0858585      *ZZ* *130709*1058*^*00501*000101654*1*P*:~  
GS*HC*85-0858585**20130709*1058*101654*X*005010X222A1~  
ST*837*0001*005010X222A1~  
BHT*0019*00*101654*20130709*1058*CH~  
NM1*41*2*INDIAN HEALTH HOSPITAL*****46~  
PER*IC*BUSINESS OFFICE*TE*5052484349~  
NM1*40*2*IOWA MEDICAID*****46~  
HL*1**20*1~  
NM1*85*2*INDIAN HEALTH HOSPITAL*****XX*7745613100~  
N3*5987 4TH ST NE~  
N4*ALBUQUERQUE*NM*871201234~  
REF*EI*850858585~
```



Questions?