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Talend Data Mapper - X12 HIPAA Specifications

User Guide

6.4.1

Adapted for v6.4.1. Supersedes previous releases.

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Notices

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Preface

1. General information

1.1. Purpose

This User Guide explains how to manage *Talend Data Mapper X12 HIPAA Specifications* functions in a normal operational context.

Information presented in this document applies to *Talend Data Mapper X12 HIPAA Specifications* **6.4.1**.

1.2. Audience

This guide is for users and administrators of *Talend Data Mapper X12 HIPAA Specifications*.

The layout of GUI screens provided in this document may vary slightly from your actual GUI.

1.3. Typographical conventions

This guide uses the following typographical conventions:

- text in **bold:** window and dialog box buttons and fields, keyboard keys, menus, and menu and options,
- text in **[bold]:** window, wizard, and dialog box titles,
- text in `courier`: system parameters typed in by the user,
- text in *italics*: file, schema, column, row, and variable names,
- The  icon indicates an item that provides additional information about an important point. It is also used to add comments related to a table or a figure,
- The  icon indicates a message that gives information about the execution requirements or recommendation type. It is also used to refer to situations or information the end-user needs to be aware of or pay special attention to.

2. Feedback and Support

Your feedback is valuable. Do not hesitate to give your input, make suggestions or requests regarding this documentation or product and find support from the **Talend** team, on **Talend Community** at:

https://community.talend.com/

Chapter 1. Specifications

The *Talend Data Mapper - X12 HIPAA Specifications* contain the structure definitions that allow you to create maps that interact with the X12 4010 or 5010 HIPAA EDI transactions. This project is built into the *Talend Data Mapper* as a read-only project and can be deployed to the *TDM Runtime* using the normal deployment mechanism for projects.

These definitions do not include the base X12 definitions which are available separately. However they do include the necessary X12 definitions (functional acknowledgment and interchange) to allow full processing of the HIPAA transactions.

1.1. Usage

You should use these definitions by inheriting from them (creating a structure that customizes another structure using the new structure wizard), even if you don't intend to actually customize the transaction set. The main reason for this is to allow flexibility for a migration to a later version. To migrate to the later version you would need to change only one place which is where your custom structure inherits from the standard structures defined in the specification project. Another reason for this is these specification definitions are immutable in a read-only project, so you won't be able to associate your own sample documents directly with the structures in this project.

1.2. Contents of X12_5010_HIPAA project

This section describes the contents of the *X12_5010_HIPAA specifications* project.

1.2.1. Transactions

The transactions are contained in a folder called *Transactions*.

1.2.2. Envelopes (Interchange, Functional Group)

The *Envelopes* folder contains a structure that defines the interchange. This is used if the interchange segments (*ISA*, *GS*, *GE*, *IEA*) are required. To use this, inherit from it in your own project (create a structure that customizes it). Then, in your custom structure, expand it until you see the *Transaction* element. You can then drag your custom transaction structure (like the *270-A1-H*L for example) to the *Transaction* element which will cause it to inherit at that point. Then the custom interchange structure is ready to use.

1.2.3. Acknowledgment (997, 999, TA1)

There are three types of acknowledgment that you may need to process when using HIPAA transactions. The *Functional Acknowledgment (997)* transaction is used to report problems at the functional group or transaction set level. This is located in the *Transactions/997*. The *Implementation Acknowledgment (999)* is used to provide additional implementation specification validation reporting. This is located in the *Transactions/999-A1*. Both the *997* and *999* are provided with and without the X12 envelope segments. For problems with the interchange or functional group (*ISA/GS*), the *TA1* segment is used. This is found at *Segments/TA1*.

1.2.4. Other

There are other folders (*Segments*, *Composites*, *Elements*) that contain structure definitions for those EDI components. You should never need to use these directly as everything required is present in the transaction structure. They are provided because the specification meta-data is created exactly it is specified by the EDI standard. You may also note that in the transaction structure some elements show the change indication icon (a small gold triangle in the icon). This represents the cases where the definition in the transaction specification overrides or augments that of the underlying segment/composite/element. Again, no action on your part is required, this is just for information.

1.3. Contents of X12_5010_HIPAA Examples project

This section describes the contents of the *X12_5010_HIPAA Examples* project, which shows EDI/XML transformations for each of the X12 5010 HIPAA specifications. For each transaction, a simple XML document demonstrates the commonly used portions of the EDI.

The examples provided here are intended to show various common mapping situations and also provide the best practices for naming and organizing maps associated with Health Care EDI. They are organized into transaction set pairs where the request transaction set is paired with its corresponding response, like the *270 Health Care Benefit Eligibility Inquiry* and *271 Health Care Benefit Eligibility Response*. For each transaction, there is a map with the EDI as input and output. In addition, map inheritance and reverse mapping are used to reuse the mapping instructions where possible.

The following table shows how the different HIPAA transactions correspond to the structures in the project.

Transaction	Specification Version	Structure	Description
270	5010X279A1	270-B1	Health Care Eligibility Benefit Inquiry
271	5010X279A1	271-B1	Health Care Eligibility Benefit Response
276	5010X212	276-A1	Health Care Claim Status Request
277	5010X212	277-B3	Health Care Claim Status Response
278	5010X217	278-A1	Health Care Services Review Information Request
278	5010X217	278-A3	Health Care Services Review Information Response
835	5010X221A1	835-W1	Health Care Claim: Payment/ Advice
837	5010X222A1	837-Q1	Health Care Claim: Professional
837	5010X223A1	837-Q2	Health Care Claim: Institutional
837	5010X224A1	837-Q3	Health Care Claim: Dental

In addition, there are examples of the *997* and *999* acknowledgment transactions which are generated from the *ExecutionStatus* object that is returned from the execution of a map. The examples show how to translate the errors and descriptive information from the XML manifestation of the *ExecutionStatus* object into the *997* or *999*. You can get the XML from the *ExecutionStatus* object by using the *ExecutionStatus.exportToXml()* method.

Here are the maps associated with each transaction pair:

- *EDI-XML-Base* (e.g. *270-Eligibility-Base*) - This is a base map at the transaction set level that provides the mapping that is common to both the request and response, since in the case of Health Care EDI the order and content of the transaction sets are very similar between the request (e.g. *270*) and response (e.g. *271*). This map is inherited by both the EDI to XML request and response transactions.

- *EDI-XMLRequest* (e.g. *270-EligibilityRequest*) - Contains the EDI to XML mapping of an inbound request. This inherits from the Base map (described above). All of the actual mapping instructions come from that map.

- *XMLRequest-EDI* (e.g. *EligibilityRequest-270*) - This is done by creating a reverse map from the EDI to XML Request map, and then adding or fixing the necessary mappings to produce the correct EDI.

- *EDI-XMLResponse* (e.g. *271-EligibilityResponse*) - Contains the EDI to XML mapping of an inbound response. As with the corresponding request, this inherits from the Base map. Additional mapping is required to handle the elements provided in the response.

- *XMLResponse-EDI* (e.g. *EligibilityResponse-271*) - This is done by creating a reverse map from the EDI to XML Response map, and then adding or fixing the necessary mappings to produce the correct EDI.

The following table shows the different mapping cases demonstrated.

#	Condition	Description	Example	Method
1	Simple	X12 to XML with one occurrence at one loop level	One HL loop for source	
2	Looping	X12 to XML with multiple occurrences of looping	loop of one *Info Source Name* (*NM1* segment with *ABC Insurance*), one *Receiver* (*NM1* with *Marcus A Jones*), one *Subscriber* (*NMI* with *John L Smith*) and two *Dependents* (*NM1*'s with *Jim Smith* and *Kathy Smith*)	
			loop of multiple contact information (*PER*) in *Info Source*	
3	Output Format	X12 to XML date format expressed as CCYYMMDDY	Transaction set creation date (*BHT04*)	structure's field data default
		X12 to XML date format expressed as YYMMDD	Subscriber date (*DTP*)	structure's field data format YYMMDD
		X12 to XML code mapping value from code to description	*Info Source Name* entity Id code (*NM101*) output changed from code *PR* to *PayingPerson*	loop using filter and constant
			Info Source Communication Contact Telephone Number Qualifier TE (*PER03*) mapped to *TelephoneNo*	
4	Code Value	X12 to XML with output field conditional on code value	*Subscriber Plan Begin Date* qualifier (*DTP01* with code *102*) selected from multiple dates and output to *PlanIssueDate*	
5	Function	X12 to XML concatenate fields	*Name* (*NM1* in receiver loop) to concatenate *Subscriber*'s first name, middle initial and last name	map output field using **concat** function
			Address (*N3* and *N4*) to concatenate *subscriber*'s address, city,state and zip	

1.3.1. Structures

The structures used by the examples are contained in a folder called *Structures*.

1.3.2. Maps

The *Maps* folder contains the maps to be used by each of the different example transformations.

1.3.3. Sample Data

The *Sample Data* folder contains the data used by each of the different example transformations.

1.3.4. 270/271

The following table provides details on the *270/271* transaction pair.

Transaction type	**X12 EDI**		**Sample Map Version 50 Release 10 (5010)**		
	No	**Description**	**Direction**	**Map Name**	**XML Structure Name**
Eligibility Request	270	Health Care Benefit Eligibility Inquiry	Inbound EDI to XML	270-EligibilityRequest	EligibilityRequest
			Outbound XML to EDI	EligibilityRequest-270	
Eligibility Response	271	Health Care Benefit Eligibility Response	Inbound EDI to XML	271-EligibilityResponse	EligibilityResponse
			Outbound XML to EDI	EligibilityResponse-271	

The following table shows the mapping cases demonstrated in the examples for the *271* inbound transaction.

#	**Condition**	**Description**	**Example**	**Mapping Method**
1	Looping	X12 to XML with multiple occurrences of looping	loop of one *Info Source Name* (*NM1* segment with *ABC Insurance*), one *Receiver* (*NM1* with *Marcus A Jones*), one *Subscriber* (*NMI* with *John L Smith*) and two *Dependents* (*NM1*'s with *Jim Smith* and *Kathy Smith*)	Output structure Occurs max of *-1*
			loop of multiple contact information (*Information Source PER* segment with *MEMBER SERVICES* and *BILLING DEPT*)	
3	Output Format	X12 to XML date format as YYMMDDY	Transaction set creation date (*BHT04*)	Output structure's *Field Data Format* YYMMDD
		X12 to XML date format as CCYYMMDDY	Subscriber date (*DTP*)	Output structure's *Field Data Format* default
		X12 to XML code mapping value from code to description	*Info Source NM1* loop with *Communication Contact* (*PER03*) from *Telephone Number Qualifier TE* maps to *Telephone*	Output element *Telephone* type set to *value*. Drag *PER03* to *Telephone* to contact *qualifier1* and a popup appears to map input code to output value.
4	Code Value	X12 to XML with output field conditional on code value	*Subscriber Plan Begin Date* qualifier (*DTP01*) selects specific date type (*346*) and output to *PlanIssueDate*	**AgConcat** function loop searching on constant
5	Function	X12 to XML concatenate fields	*Name* (*NM1* in receiver loop) to concatenate *Subscriber*'s first name, middle initial and last name	Map output field using **concat** function by dragging input structure fields to loop expression. Drag constant function to insert a value between fields (space)

1.3.5. 276/277

The following table provides details on the *276/277* transaction pair.

Transaction type	**X12 EDI**		**Sample Map Version 50 Release 10 (5010)**		
	No	**Description**	**Direction**	**Map Name**	**XML Structure Name**
Claim Status Request	276	Health Care Claim Status Request	Inbound EDI to XML	276-ClaimStatusRequest	ClaimStatusRequest
			Outbound XML to EDI	ClaimStatusRequest-276	

Transaction type	X12 EDI		Sample Map Version 50 Release 10 (5010)		
	No	Description	Direction	Map Name	XML Structure Name
Claim Status Response	277	Health Care Information Status Notification	Inbound EDI to XML	277-ClaimStatusResponse	ClaimStatusResponse
			Outbound XML to EDI	ClaimStatusResponse-277	

1.3.6. 278q/278r

The following table provides details on the *278* transaction.

Transaction type	X12 EDI			Sample Map Version 50 Release 10 (5010)		
	No	Description	Qualifier	Direction	Map Name	XML Structure Name
Claim Review	278	Health Care Services Review Information	A1-Request	Inbound EDI to XML	278q-ClaimReviewRequest	ClaimReviewRequest
				Outbound XML to EDI	ClaimReviewRequest-278q	
			A3-Response	Inbound EDI to XML	278r-ClaimReviewResponse	ClaimReviewResponse
				Outbound XML to EDI	ClaimReviewResponse-278r	

1.3.7. 835

The following table provides details on the *835* transaction.

Transaction type	X12 EDI		Sample Map Version 50 Release 10 (5010)		
	No	Description	Direction	Map Name	XML Structure Name
Claim: Payment Advice	835	Health Care Claim: Payment Advice	Inbound EDI to XML	835-ClaimPayment	ClaimPayment
			Outbound XML to EDI	ClaimPayment-835	

1.3.8. 837q1/837q2/837q3

The following table provides details on the *837* transaction.

Transaction type	X12 EDI			Sample Map Version 50 Release 10 (5010)		
	No	Description	Qualifier	Direction	Map Name	XML Structure Name
Claim: Professional / Dental / Institutional	837	Health Care Claim: Professional / Dental / Institutional	Q1	Inbound EDI to XML	837q1-ProfessionalClaim	ProfessionalClaim
				Outbound XML to EDI	ProfessionalClaim-837q1	
			Q2	Inbound EDI to XML	837q2-DentalClaim	DentalClaim
				Outbound XML to EDI	DentalClaim-837q2	

Transaction type	X12 EDI			Sample Map Version 50 Release 10 (5010)		
	No	Description	Qualifier	Direction	Map Name	XML Structure Name
			Q3	Inbound EDI to XML	837q3-InstitutionalClaim	InstitutionalClaim
				Outbound XML to EDI	InstitutionalClaim-837q3	

1.3.9. 997/999

The following table provides details on the *997* and *999* acknowledgement transactions.

Transaction type	X12 EDI		Sample Map Version 50 Release 10 (5010)		
	No	Description	Direction	Map Name	XML Structure Name
Functional Acknowledgement	997	Health Care Functional Acknowledgement	Outbound XML to EDI	ExecutionStatusTo997	Builtin/Structures/Status/ExecutionStatus
Implementation Acknowledgement	999	Health Care Implementation Acknowledgement	Outbound XML to EDI	ExecutionStatusTo999	Builtin/Structures/Status/ExecutionStatus