

Federal Government

Federal Implementation Guidelines for Electronic Data Interchange (EDI)

August 1994



Federal Government

# Federal Implementation Guidelines for Electronic Data Interchange (EDI)

This document was prepared by the Federal Electronic Commerce Acquisition Program Management Office (ECA-PMO). Permission to quote or reproduce any part of this document except for Government purposes must be obtained from ECA-PMO.

Federal Electronic Commerce Acquisition Program Management Office Skyline 4, Suite 400 5113 Leesburg Pike Falls Church, VA 22041

# **TABLE OF CONTENTS**

1	1.0	INTRODUCTION 1
		1.1 PURPOSE OF THE GUIDELINE
		1.2 SCOPE 1
		1.3 ADMINISTERING BODY 1
		1.4 INTRODUCTION TO EDI 1
		1.5 HOW TO USE THE GUIDELINE 2
		<ul><li>1.5.1 Conventions, Standards, and Guideline 2</li><li>1.5.2 Documentation of Conventions 4</li></ul>
2	2.0	BUSINESS ISSUES 1
		2.1 IMPLEMENTATION CONSIDERATIONS
		2.2 TIMING OF TRANSACTIONS 1
		2.3 MODES OF OPERATION 1
		2.4 SECURITY 1
3	3.0	LEGAL CONSIDERATIONS 1
2	4.0	ENVIRONMENTS 1
4	5.0	MAINTENANCE 1
		5.1 MAINTAINING GUIDELINE 1
		5.2 MAINTAINING X12 STANDARDS 1
		5.3 VERSION/RELEASE TIMING 1
e	5.0	COMMUNICATION 1
7	7.0	MISCELLANEOUS 1
		7.1 SOURCE OF REFERENCES 1
8	3.0	GLOSSARY 1
		8.1 X12 GLOSSARY 1
		8.2 FEDERAL GLOSSARY

9.0	FOR	MS AND DOCUMENTS 1
	9.1	ASC X12 FORMS 1
	9.2	ASC X12 DOCUMENTS 7
10.0		ERAL CONVENTIONS FOR USING X12 TRANSACTION SETS 11
	10.1	INTRODUCTION 1
	10.2	CONTROL SEGMENTS 1
	10.2.1	Description of Use 2
	10.2.2	Control Segment Specifications 7
	10.3	LARGE CODE LISTS MAINTAINED BY ASC X12 19
	10.4	CODE LISTS NOT MAINTAINED BY ASC X12
	10.5	FEDERAL CONVENTIONS, MATRICES OF USE, AND EXAMPLES
	10.5.1	810 Invoice
		Convention 1
		Matrix 55
		Example 63
	10.5.2	
		Convention 1
		Matrix 47
	10.5.3	Example
	10.3.5	824 Application Advice Convention 1
		Matrix
		Example
	10.5.4	1
		(Reserved)
	10.5.5	836 Contract Award
		Convention 1
		Matrix 17
		Example 21
	10.5.6	
		Convention 1
		Matrix 43
		Example 51
	10.5.7	8
		Vendor Registration) Convention 1
		Matrix 15
		IVIAUIA IJ

	Example 19
10.5.8	840 Request for Quotation
	Convention 1
	Matrix 123
	Example 135
10.5.9	841 Specification/Technical Information
	(Reserved)
10.5.10	843 Response to Request for Quotation
	Convention 1
	Matrix 111
	Example 123
10.5.11	848 Material Safety Data Sheet
	(Reserved)
10.5.12	850 Purchase Order
	Convention 1
	Matrix 135
	Example 147
10.5.13	855 Purchase Order Acknowledgment
	Convention 1
	Matrix 33
	Example 41
10.5.14	856 Ship Notice/Manifest
	(Reserved)
10.5.15	
10 5 1 6	(Reserved)
10.5.16	864 Text Message
	Convention 1
	Matrix 15
10 5 17	Example
10.3.17	865 Purchase Order Change Acknowledgment (Reserved)
10.5.18	
10.5.10	(Reserved)
10 5 19	870 Order Status Report
10.0.17	(Reserved)
10.5.20	997 Functional Acknowledgment
	Convention 1
	Matrix 13
	Example 15
	NDIX: IMPLEMENTATION
CONV	ENTIONS RECORD OF CHANGES

## **1.0 INTRODUCTION**

This chapter explains the purpose and scope of the guideline, and provides an explanation of its use.

## 1.1 PURPOSE OF THE GUIDELINE

The guideline provides general guidance on the implementation of American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12 electronic data interchange (EDI) standards within automated information systems (AIS). The guideline also serves as guidance on information interchange procedures that require the collection, reporting, and/or exchange of data needed to perform government missions.

## **1.2 SCOPE**

The guidance presented here should be used by organizational elements of the Federal community and by government organizations that exchange data with the Federal community.

The federal community encompasses the (a) Federal agencies of the United States Government including Department of Defense (DoD); (b) local and state governments; (c) foreign national governments; and (d) international government organizations.

The implementation conventions (IC) published in this guideline are for execution. Implementation conventions labeled drafts are for trial use and comment. Federal components must submit to the administering body their data requirements that are not covered in these implementation conventions as soon as possible, as indicated in Chapter 5, Section 5.1.

## **1.3 ADMINISTERING BODY**

A Standards Management Committee (SMC) is being chartered within the Federal Electronic Commerce Acquisition Program Management Office (ECA-PMO). The SMC will be made up of Federal agency representatives with the National Institute for Standards and Technology (NIST) functioning as secretariat. The SMC will provide government-wide support, coordination, and oversight of the development and continued maintenance of the IC required to ensure fulfillment of business requirements for the implementation of electronic commerce (EC).

## **1.4 INTRODUCTION TO EDI**

EDI is the computer-to-computer exchange of routine business information in a standard format. The Federal government, as part of the President's re-inventing government program, has begun a major initiative for "Streamlining Procurement through Electronic Commerce." As part of that initiative, a report establishing an overall Federal architecture for EC was published for comments in April 1994. Following the publication, the Office of Management and Budget chartered the Federal ECA-PMO mentioned above.

In recent years, many private-sector companies have reaped substantial benefits from automating their internal operations, such as accounting, order entry, purchasing, scheduling, and material processing. Those same companies are now focusing on automating their external operations using EDI and, in doing so, are reporting significant economic rewards — between \$2 and \$10 or more in direct cost savings from every document that they transmit electronically to their trading partners.

In spite of the magnitude of direct cost savings achieved through EDI, many proponents note that **the real benefits of EDI come from using it as a tool to simplify and improve business procedures** — business process re-engineering, in the current parlance. As a consequence, they are reporting \$4 to \$5 in indirect cost savings for every \$1 in direct cost savings from various business improvements made possible by EDI, such as reduced inventories, improved competitive pricing strategies, enhanced auditing procedures, and streamlined operations.

The government has long recognized the economic and strategic advantages of EDI, both in the Defense and the civilian sectors. Those advantages are becoming even more important as Federal budgets are constrained. Additionally, as a major player in the world trade, the U.S. needs to improve its ability to compete. The adoption of common Federal Implementation Conventions and the promotion of "better business practices" are expected to help in promoting our nations commerce, electronically.

## 1.5 HOW TO USE THE GUIDELINE

The main topics and structures of this document conform to the *EDI Implementation Reference Manual Guideline* document developed by the standing task group on training and implementation of the ASC X12. The purpose of having agreed-upon "rules" and structures is to facilitate the use of EDI among the many industry and government activities who conduct business electronically with these transactions. This document serves as a reference to all those activities.

## 1.5.1 Conventions, Standards, and Guideline

The terms conventions, standards, and guideline are used throughout this document and are defined as follows:

• *Standards* are the technical documentation approved by ASC X12; specifically, transaction sets, segments, data elements, code sets, and interchange control structure. Standards provide the framework for how a specific EDI message will be formatted for transmission.

- *Conventions* are the common practices and/or interpretations of the use of ASC X12 standards. Conventions define how trading partners will use the standards for their mutual needs.
- *The Guideline* is instructions on the use of EDI. It provides additional information to assist in conducting EDI. The Guideline is intended to provide assistance and should not be your sole source of information.
- *Implementation Notes* help explain how trading partners will use the standards for each convention. For convenience, they are clearly marked and placed throughout the convention at the appropriate point. Implementation notes are the bridge from the standards to the convention.

#### 1.5.1.1 Who Develops the Conventions?

Conventions result from a joint effort by business, technical, and EDI ASC X12 standards experts. After defining the business data requirement, a transaction set is selected that best matches the data and overall business purpose. The transaction set must then be tailored for that specific business' use by "mapping" each data requirement to a corresponding data element within the transaction set. The convention is usually written before any computer EDI systems development work and serves as a design document for that development process.

#### 1.5.1.2 Why Use a Convention?

To create an ASC X12 transaction, a user must know the data requirements, understand the ASC X12 standard, and be able to use that information to develop an interface program between the computer application and the ASC X12 translator. The convention document provides the information necessary for this to take place. Trading partners using the same convention will ensure that their messages are understood at the translation point.

#### 1.5.1.3 Who Needs a Convention?

System analysts and application programmers who plan to create or read ASC X12 transactions use a convention to aid in interface software design. The convention will help the programmer and analyst identify where their application data requirement should be carried in an ASC X12 transaction set.

#### 1.5.1.4 Can I Develop a Convention?

Conventions already exist for some of the most common business practices. Copies of existing conventions can be acquired through your organization's EDI coordinator at the start of an EDI project. If you find no conventions for the business practice you are about to implement, your EDI coordinator should contact the administering body.

#### 1.5.1.5 Will I Need Any Other Implementation Guideline

All new implementations of EDI must conform to the guideline. There will be a period of transition as existing government ICS are incorporated into the Federal Government Implementation Convention (FGIC) set (003040). If you are currently doing business with a government agency, continue your operations, but be aware that both you and the agency(ies) are expected to develop migration plans to conform to the current Federal Guideline. It is the SMC's expectation that by working with the established standards body and the various industry associations represented at the ASC X12 working groups, the tendency towards IC proliferation can be halted. The SMC's charter is to contain the proliferation within the Federal government and hopes to work with the state government representatives towards a national set of ICs.

## 1.5.2 Documentation of Conventions

Conventions are adopted from, and are intended to be in conformance with, ANSI ASC X12 standards or ASC X12 Draft Standards for Trial Use (DSTU).

Federal EDI ICs define the standard government usage of ASC X12 standards. Each implementation convention contains information from the ASC X12 standard as well as additional information that serves to define and clarify usage of the standard. With a few exceptions, implementation conventions are self-contained collections of information: the transaction set table is followed by information about transaction set segments, including detailed information about the data elements that make up the segments. In cases where lengthy code lists are specified, the implementation convention may refer the implementation. For this reason, it is recommended that the user acquire the ASC X12 standards version/release 003040, as well as future standards.

Federal EDI implementation conventions are based on a particular ASC X12 version and release. Under no circumstances should an implementation convention developed for one ASC X12 version and release be used in conjunction with a different ASC X12 version and release. For example, an implementation convention developed for ASC X12 version/release of 003010 may not be used to program an EDI translator to process transaction sets at ASC X12 version/ release 003040.

For various reasons, Federal implementation conventions are subject to maintenance actions. For example, as new users of an implementation convention attempt to implement EDI, new data requirements may be identified. Since implementation conventions do change, a Federal version number is used to indicate the version of the implementation convention. The ICs in this guide-line are numbered version/release 003040FED1.

It is crucial that the user of EDI implementation conventions be aware of both the ASC X12 version and release and the Federal version of the implementation convention being used.

#### 1.5.2.1 Transaction Sets

All Federal Government EDI implementation conventions begin with transaction set tables. Transaction set tables define information that is relevant to a particular business function (e.g., invoicing). In addition to providing information directly from the ASC X12 standard, these tables contain important government specific information. Federal implementation notes define the purpose and scope of the function that the implementation convention serves. Also, the implementation convention transaction set table defines which ASC X12 segments may be used by Federal EDI trading partners.

Figure 1.5-1 is a guide to the information provided in implementation convention transaction set tables. In general, government specific information is shown on the left side of the page and in italicized notes. All other information comes directly from the ASC X12 standard. Table 1.5-1 provides explanations for the numbered notes.

Following the transaction set tables, implementation conventions contain information about transaction set segments. Segment information pages in EDI implementation conventions contain information from ASC X12 transaction set tables, the ASC X12 segment directory, and the ASC X12 data element dictionary. In addition to providing information directly from the ASC X12 standards, these segment pages contain important, application specific information. Implementation notes clarify usage for segments, data elements, and codes. Segment and data element requirement designators define the requirements for including segments and data elements. For identifier (ID) type data elements, acceptable code values are listed as part of the data element information, unless all values are acceptable in which case a implementation note will so indicate.

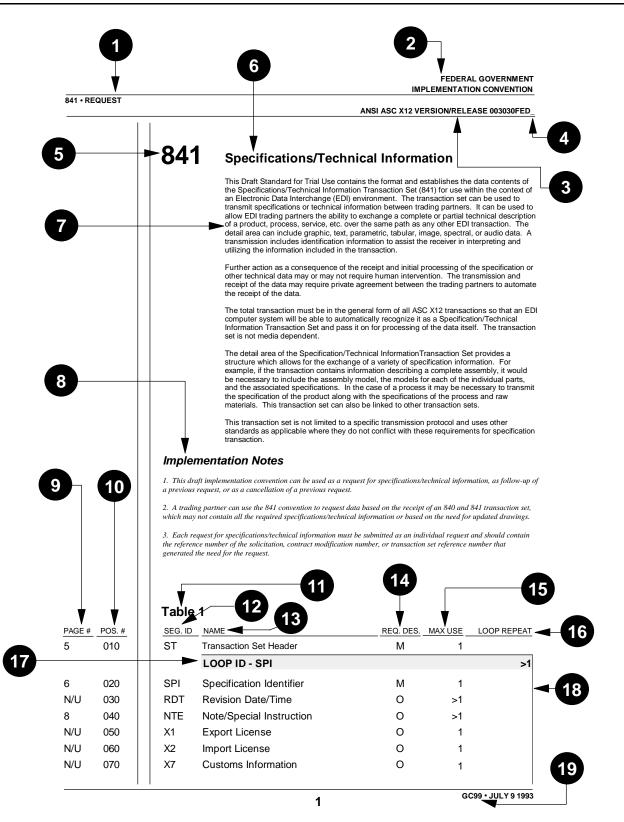


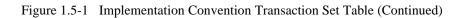
Figure 1.5-1 Implementation Convention Transaction Set Table

X12 VERSI	ON/RELEASE 0	03030EED			841 • REQUES
1	1		0	4	
080	GOV	· · ·	0	>1	
		LOOP ID - SPI/REF			>1
090	REF	Reference Numbers	0	1	
100	DTM	Date/Time Reference	-	>1	
110	PER		0	>1	
		LOOP ID - SPI/N1			>1
120	N1	Name	0	1	
130	N2	Additional Name Information	0	2	
140	N3	Address Information	0	2	
150	N4	Geographic Location	0	1	
160			0	>1	
170	PER	Administrative Communications Contact	0	>1	
	Table	2			
POS. #	SEG. ID	NAME R	REQ. DES.	MAX USE	LOOP REPEAT
					>
010	н		М	1	-
010			IVI		
			~		>1
	-		-		
			-		
			-	-	
050	MSG		0	>1	
		LOOP ID - HL/PID			>1
060	PID	Product/Item Description	0	1	
065	PKD	Packaging Description	0	>1	
070	QTY	Quantity	0	>1	
074	MEA	Measurements	0	>1	
075	UIT	Unit Detail	0	>1	
076	LOC	Location	0	1	
077	PWK	Paperwork	0	>1	
		LOOP ID - HL/PID/PKG			>1
078	PKG	Marking Packaging Loading	0	1	
	-		õ		
0.0					- 4
000			0		>1
			-		
100				>1	
			-		>1
			0		
120	DTM	Date/Time Reference	0	>1	
130	REF	Reference Numbers	0	>1	
		LOOP ID - HL/EFI			>1
140	EFI	Electronic Format Identification	0	1	
150	GOV	Military Standard 1840-A Record Definition	0	>1	
160	BIN	Binary Data	0	>1	
					>1
170	CID		0	1	
	080         090         100         110         120         130         140         150         160         170         POS. #         010         020         030         040         045         050         060         065         070         074         075         076         077         078         079         080         090         100         120         130         140         150	080         GOV           090         REF           100         DTM           110         PER           120         N1           130         N2           140         N3           150         N4           160         REF           170         PER           160         REF           170         PER           010         HL           020         SPI           030         RDT           040         LIN           040         UIT           050         MSG           060         PID           074         MEA           075         UIT           076         LOC           077         PWK           078         PKG           079         DTM           100         PER           101         MEA           102         DTM           130         REF           140         EFI           140         EFI           140         EFI           140         EFI           150	Description       LOOP ID - SPI/REF         090       REF       Reference Numbers         100       DTM       Date/Time Reference         110       PER       Administrative Communications Contact         120       N1       Name         130       N2       Additional Name Information         140       N3       Address Information         150       N4       Geographic Location         160       REF       Reference Numbers         170       PER       Administrative Communications Contact         170       Reference Numbers       PER         010       HL       Hierarchical Level       LOOP ID - HL/SPI         020       SPI       Specification Identifier       Reference         030       RDT       Revision Date/Time       LOOP ID - HL/PID         040       LIN       Item Identification       Nesasur	080       GOV       Military Standard 1840-A Record Definition       O         090       REF       Reference Numbers       O         100       DTM       Date/Time Reference       O         110       PER       Administrative Communications Contact       O         120       N1       Name       O       O         130       N2       Additional Name Information       O       O         140       N3       Address Information       O       O         150       N4       Geographic Location       O       O         160       REF       Reference Numbers       O       O         170       PER       Administrative Communications Contact       O         170       Ref       Reference Numbers       O       O         030       RDT <td< td=""><td>080         GOV         Military Standard 1840-A Record Definition         0         &gt; 1           090         REF         Reference Numbers         0         1           100         DTM         Date/Time Reference         0         &gt; 1           110         DER         Administrative Communications Contact         0         1           120         N1         Name         0         1           130         N2         Additional Name Information         0         2           140         N3         Address Information         0         2           150         N4         Geographic Location         0         1           170         PER         Administrative Communications Contact         0         1           170         PER         MME         REO.DES. MAX USE         1           010         HL         Hierarchical Level         M         1         1           020         SPI         Specification Identifier         0         1         1           030         RDT         Revision Date/Time         0         1         1           040         LIN         Item Identification         0         1           050</td></td<>	080         GOV         Military Standard 1840-A Record Definition         0         > 1           090         REF         Reference Numbers         0         1           100         DTM         Date/Time Reference         0         > 1           110         DER         Administrative Communications Contact         0         1           120         N1         Name         0         1           130         N2         Additional Name Information         0         2           140         N3         Address Information         0         2           150         N4         Geographic Location         0         1           170         PER         Administrative Communications Contact         0         1           170         PER         MME         REO.DES. MAX USE         1           010         HL         Hierarchical Level         M         1         1           020         SPI         Specification Identifier         0         1         1           030         RDT         Revision Date/Time         0         1         1           040         LIN         Item Identification         0         1           050

Figure 1.5-1 Implementation Convention Transaction Set Table (Continued)

FEDERAL GOVERNMENT IMPLEMENTATION CONVENTION

	1	AN	SI ASC X12	VERSION/RE	LEASE 003030FI
190	TMD	Test Method	0	>1	
200	PSD	Physical Sample Description	0	1	
201	CSS	Conditional Sampling Sequence	0	1	
-		, ,	-		
220	MSG	U	0	>1	
			-		>′
			-	-	
-			-		
250	REF	Reference Numbers	0	>1	
		LOOP ID - HL/CID/STA			>'
260	STA	Statistics	0	1	
270	DTM	Date/Time Reference	0	>1	
280	REF	Reference Numbers	0	>1	
		LOOP ID - HL/CID/CSF			>1
282	CSF	Conditional Sampling Frequency	0	1	
283	LS	Loop Header	0	1	
		LOOP ID - HL/CID/CSF/CID			>1
284	CID	Characteristic/Class ID	0	1	
	-			-	
286	STA		õ	-	
287	IF	· · · · · · · · · · · · · · · · · · ·	0		
		LOOP ID - HL/CID/EFI			>1
290	FFI	Electronic Format Identification	0	1	
			-	>1	
310	BIN	Binary Data	0	>1	
POS. #			REQ. DES.	MAX USE	LOOP REPEA
010	SE	Transaction Set Trailer	М	1	
	NOTES 2/010 2/020 2/170	To be meaningful, at least one of the SPI, PID, REI with each occurrence of the HL loop. The HL segment may be used to define the hierarc specifications reported in the associated HL loop. It he product in its entirety or to subunits of the product in its entirety or to subunits of the product in second-level HL segment may refer assembly. This pattern may be repeated as often a The CID segment may be used to define either a g	hical relation Product-relat uct. For exa to parts or su as required.	ship of produc ed specificatic mple, if the to bassemblies of	ct-related ons may refer to p level refers to a of the top
	210 220 230 240 250 260 270 280 282 283 284 285 286 287 290 300 310	210       SPS         220       MSG         230       MEA         240       DTM         250       REF         260       STA         270       DTM         280       CSF         282       CSF         283       LS         284       CID         285       STA         286       STA         287       LE         290       EFI         300       GOV         310       EFI         POS. #       SEG. ID	210       SPS       Sampling Parameters for Summary Statistic         220       MSG       Message Text         LOOP ID - HL/CID/MEA         230       MEA       Measurements         240       DTM       Date/Time Reference         250       REF       Reference Numbers         260       STA       Statistics         270       DTM       Date/Time Reference         280       REF       Reference Numbers         280       REF       Reference Numbers         281       LS       Loop ID - HL/CID/CSF         282       CSF       Conditional Sampling Frequency         283       LS       Loop Header         LOOP ID - HL/CID/CSF/CID       Loop Header       Loop Trailer         286       STA       Statistics         287       LE       Loop Trailer         290       EFI       Electronic Format Identification         300       GOV       Military Standard 1840-A Record Identificat         310       BIN       Binary Data	210       SPS       Sampling Parameters for Summary Statistics       O         220       MSG       Message Text       O         230       MEA       Measurements       O         240       DTM       Date/Time Reference       O         250       REF       Reference Numbers       O         260       STA       Statistics       O         270       DTM       Date/Time Reference       O         280       REF       Reference Numbers       O         280       REF       Reference Numbers       O         281       LS       LOOP ID - HL/CID/CSF       O         282       CSF       Conditional Sampling Frequency       O         283       LS       Loop Header       O         284       CID       Characteristic/Class ID       O         285       MEA       Measurements       O         286       STA       Statistics       O         287       LE       Loop Trailer       O         280       EFI       Electronic Format Identification       O         300       GOV       Military Standard 1840-A Record Identification       O         310       BIN <td< td=""><td>210       SPS       Sampling Parameters for Summary Statistics       0       1         220       MSG       Message Text       0       &gt;1         220       MEA       Measurements       0       1         230       MEA       Measurements       0       1         240       DTM       Date/Time Reference       0       &gt;1         250       REF       Reference Numbers       0       &gt;1         260       STA       Statistics       0       1         270       DTM       Date/Time Reference       0       &gt;1         280       REF       Reference Numbers       0       &gt;1         280       REF       Reference Numbers       0       &gt;1         280       REF       Corditional Sampling Frequency       0       1         281       LS       Loop Header       0       1         282       CSF       Conditional Sampling Frequency       0       1         283       LS       Loop Header       0       1         284       CID       Characteristic/Class ID       0       1         285       MEA       Measurements       0       1         286<!--</td--></td></td<>	210       SPS       Sampling Parameters for Summary Statistics       0       1         220       MSG       Message Text       0       >1         220       MEA       Measurements       0       1         230       MEA       Measurements       0       1         240       DTM       Date/Time Reference       0       >1         250       REF       Reference Numbers       0       >1         260       STA       Statistics       0       1         270       DTM       Date/Time Reference       0       >1         280       REF       Reference Numbers       0       >1         280       REF       Reference Numbers       0       >1         280       REF       Corditional Sampling Frequency       0       1         281       LS       Loop Header       0       1         282       CSF       Conditional Sampling Frequency       0       1         283       LS       Loop Header       0       1         284       CID       Characteristic/Class ID       0       1         285       MEA       Measurements       0       1         286 </td



#### Table 1.5-1

## **Transaction Set Table Explanations**

Note Num- ber	Name	Explanation
1	Application Name	If the implementation convention is designed to satisfy a particular business application, the name of that application will appear. If the implementation convention is generic, the ASC X12 transaction set title will appear.
2	Document Status	Implementation conventions that have not been formally approved will be denoted by the word <i>Draft</i> in this field.
3	ANSI ASC X12 Version and Release	Identifies the ANSI ASC X12 Version and Release in which the implementation convention is written. Also identifies the agency for whom the IC was developed, e.g., DoD Department of Defense, FED Federal Government, etc.
4	Version	Implementation conventions are revised periodically to accommodate new requirements. When they are modified, the version number is changed. This number will appear following the ASC X12 Version and Release number.
5	Transaction Set Identifier	The 3 position number of the transaction set assigned.
6	Transaction Set Title	The title of the transaction set as per ASC X12 standards.
7	Purpose and Scope	A brief explanation of the intended use of the transaction set.
8	Implementation Notes	If the implementation convention is intended to be used in a manner that is more specific than the ASC X12 purpose and scope, these notes define the intended use.
9	Page #	Usage indicators are listed in this column. If a segment is approved for use in this implementation convention, a page number is provided. This page number refers to the segment information page. If the segment is not approved for use, "N/U" (Not Lised) will appear. For those segments marked as "N/U", the IC will not generate this segment and trading partners should not send this segment.
10	Pos. # (Position Number)	Position numbers are listed in this column. These numbers are unique within implementation conven- tion transaction set tables and serve to efficiently identify the location of segments within a transaction set.
11	Transaction Set Area	Refers to areas which convey header, detail, or summary level information within the transaction set and is referred to as Table 1, 2, or 3 respectively.
12	Seg. ID	A 2 or 3 position alpha/numeric identifier of the segment, e.g., BEG, N1, G61, etc.
13	Name	The name of the segment as per ASC X12 Standards.
14	Req. Des.	A designation of the segment use within the specific transaction set, e.g., M, Mandatory, (must be used); O, Optional, (may be used); or F, Floating (can appear anywhere within the transaction set).
15	MAX Use	The maximum number of times the segment may be used in the transaction set at that specific location.
16	Loop Repeat	The maximum number of times the loop may be repeated in the transaction set at that specific location. The number of times a segment within a loop may be used is determined by its MAX Use Designator.
17	Loop Identifier	A loop is identified by the first segment identifier in the loop.
18	Loop Bracket	Lines in the transaction set tables that identify all segments and nested loops with a loop.
19	File ID Number	A number assigned to identify a specific implementation convention, e.g., GC99.
20	Nested Loop	Loops that are contained within another loop.
21	Notes	Comments may also appear.

Figure 1.5-2 is a guide to the information provided for implementation convention segments. Table 1.5-2 provides explanations of the numbered notes.

Segment information pages are presented in the order that the segments appear in the transaction set table. Note that segment information pages for those segments marked as "N/U" (not used) in the transaction set table do not appear in the convention.

The following definitions are for use in interpreting the segment requirement designators on the implementation convention segment pages.

• Mandatory:

This segment is mandatory as defined by ASC X12. The government IC never changes ASC X12 mandatory designations.

• Optional:

This segment is used at the option of the initiator. These segments can be retained for optional use or changed to required or not used.

• Required:

An optional segment under ASC X12 rules but required by the government.

• *Recommended:* This criteria is not used in Federal implementation convention.

The following definitions are for use in interpreting the data element requirement designators on the implementation convention segment pages.

• Mandatory:

This data element is mandatory as defined by ASC X12. The government IC never changes ASC X12 mandatory designations.

• Optional:

This data element is used at the option of the initiator. These data elements can be retained for optional use or changed to required or not used.

• Required:

An optional data element under ASC X12 rules but required by the government.

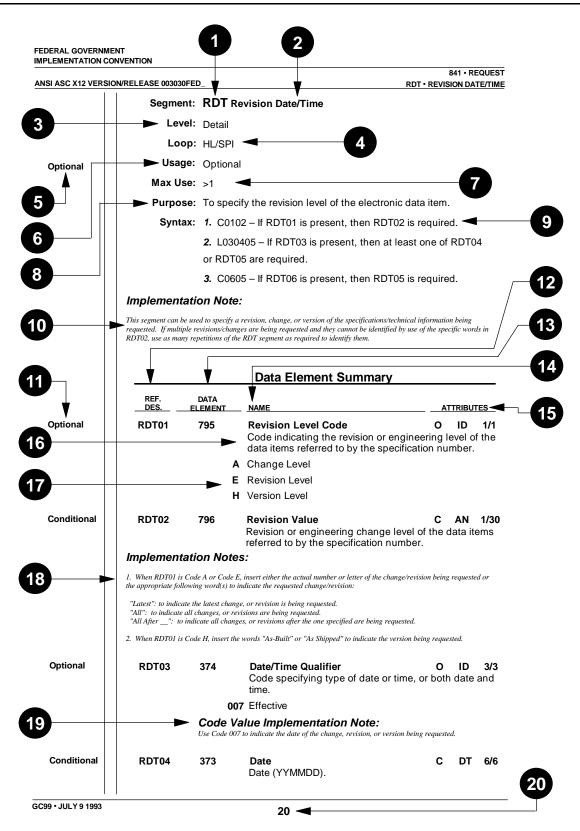


Figure 1.5-2 Implementation Convention Segment

#### Table 1.5-2

## **Transaction Set Segment Notes**

Note Number	Name	Explanation
1	Segment Identifier	A 2 or 3 position alph/numeric identifier of the segment, e.g., BEG, N1, G61, etc.
2	Segment Name	The name of the segment as per ASC X12 Standards.
3	Transaction Set Level	Heading = Table 1, Detail = Table 2, Summary = Table 3
4	Loop	If a segment is part of a loop, the Loop ID is provided. If the segment is the first segment of a loop, the loop repeat value from the transaction set table will be provided.
5	Segment Requirement Designator	Developers of implementation conventions may use a segment in accordance with the ASC X12 Standards (mandatory usage cannot be changed) or may require that an optional segment be used, may recommend that an optional segment be used, or may choose not to use an optional segment.
6	ASC X12 Segment Require- ment Designator	An ASC X12 designation of the segment use within the specific transaction set, e.g., M, Mandatory, (must be used); O, Optional, (may be used); or F, Floating (can appear any-where within the transaction set).
7	Max Use	The maximum number of items the segment may be used in the transaction set at that spe- cific location.
8	Segment Purpose	A brief explanation of the purpose (intended use) of the segment.
9	Segment Syntax Notes	Segment Semantic Notes and Comments. Issues by ASC X12 may also appear.
10	Segment Implementation Note	Notes provided by the developer of the implementation convention related to how the seg- ment is to be used to include the type of data that will be carried in the segment.
11	Data Element Requirement Designator	ASC X12 standards assign the following usage of data elements within a segment: Manda- tory, (must use), Optional (may use), or Conditional (must use under certain conditions). Developers of implementation conventions may use a data element in accordance with the ASC X12 standards (mandatory usage cannot be changed), may <b>require</b> that an optional or conditional segment be used, or may choose not to use an optional or conditional segment.
12	Ref. Des.	The positional designation of the data element within the segment.
13	Data Element	The identification number assigned by ASC X12 to the data element.
14	Name	The name of the data element as assigned by ASC X12.
15	Attributes	The use of the data element within the segment; the type of data element, e.g., AN indicates it is an alpha/numeric data element; and the minimum/maximum number of characters that the data element can contain.
16	Data Element Description	A brief description of the use of the data element.
17	Approved Codes	The codes that may be used in this data element for this implementation convention
18	Data Element Implementation Notes	Implementation notes provide specific information about the purpose of the data element for government use.
19	Code Value Implementation Notes	Code value implementation notes provide specific information about code usage.
20	Implementation Convention Page Number	This page number appears in the implementation convention transaction set table in the Page # column.

	<ul> <li><i>Not Used:</i> This data element is not used. The government will not generate this data element and trading partners should not send this data element.</li> <li><i>Conditional:</i></li> </ul>
	The presence of the data element is dependent on the presence or absence of other data element(s) in the transaction set.
1.5.2.2	<b>IC Naming Convention</b> The Federal government implementation conventions (ICs) con- tained in this Federal Guideline are maintained in a data base with other ICs for the same transaction sets. In order to assure configu- ration control is maintained on all of these ICs, an application name, identification of the organization for whom the IC was developed, and a file number is assigned to each IC. If there is only one IC in the data base for a given transaction set, the application name may be the same as the transaction set name. The application name is shown at the at the top of the IC, following the transaction set number. As an example, the application name for the 843 transaction set is: Response to RFQ – Federal Solicitation.
	The identification of the organization for whom the IC was devel- oped is also shown at the top of the IC following the ANSI ASC X12 version/release number. As an example, ANSI ASC X12 Version/Release 003040FED See Section 5.3 for a more detailed explanation of the version/release numbering structure.
	Table 1.5-3 is shown at the bottom of the IC prior to the date. As an example, the file number for the 843 IC is GC02.
	The following matrix further explains the use of an application name, organization identifier and file number for the enclosed ICs:

### Table 1.5-3

Transaction Set	Application Name	Version/Release	File Number	
810	Commercial Invoice	003040FED1	GF01	
820	Payment Order/Remittance Advice	003040FED1	GF02	
824	Application Acceptance/Rejection	003040FED1	GA03	
836	Award Notice	003040FED1	GC04	
838	Vendor Registration	003040FED1	GA01	
838	Confirmation of Vendor Registration	003040FED1	GA02	
840	RFQ - Federal Solicitation	003040FED1	GC01	
843	Response to RFQ - Federal Solicitation	003040FED1	GC02	
850	Federal Purchase Order	003040FED1	GC03	
855	Federal Purchase Order Acknowledgment	003040FED1	GC11	
864	Federal - Text Message	003040FED1	GC10	
997	Functional Acknowledgment - Federal Small Purchase	003040FED1	GI01	

#### Implementation Convention Header/Footer Structure