

ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)

Implementation Recommendations for Transactions Used Quotation Processes

Request for Quote (840) Response to RFQ (843)

IMPORTANT NOTE

Pre-1999 business models are undergoing recast into Unified Modeling Language (UML) notation, and some restructuring. In addition, we've been adding cross-references to XML standards, such as RosettaNet. **The Downloadable business model documents have *not* been updated. Always refer to the "[Clickable Business Models](#)" for the latest and greatest information.** That area of the website also contains very useful information on newer, internet-based technologies. The changes to the existing models *have not changed the original intent* of the models published here in this table, but are (we hope) improvements to presentation that enhance understanding of the business processes and how to implement them.

October 1997

Published by the Electronics Industry Data Exchange Association (EIDX),
A section of CompTIA
www.eidx.org / www.comptia.org
© Computing Technology Industry Association, 2002
All rights reserved

Revision History

Date	Description
October 1997	As Issued

Table Of Contents

Purpose	1
Additional References:	1
Standards Version	1
Abbreviations Used	1
Section 1 - Definitions	3
General Information	4
Definition of Request for Quotation	4
Definition of Response to Request for Quotation	4
Section 2 – Request for Quote (840) and Response to Request for Quote (843)	
Recommendations	5
Identification of Request for Quote Type	6
X12: BQT – Beginning Segment for Request for Quotation (840)	6
End Customer Identification	8
X12: N1 - NAME (840)	8
Competition Name	9
X12: PO3 - Additional Item Detail (840)	9
Approved Vendor List	10
X12: PO1 - Baseline Item Data (840 and 843)	10
Line Sequence Number	11
Part Identification	11
Equivalents	12
Ranking Within an AVL	12
Program Code	13
X12: PID - Product/Item Description (840 and 843)	13
Quantities Requested for Quote	14
X12: FST - Forecast Schedule (840)	14
Price Authorization Number and Expiration	15
X12: REF - Reference Numbers (843)	15
X12: DTM - Date/Time Reference (843)	15
Price Structure	16
X12: CTP - Pricing Information (843)	16
Minimum Order Quantity and Multiple Order Quantity	17
X12: QTY - Quantity (843)	17
Stock Level	17
Standard Package Quantity	17
Supply constraints	17
Product Liability	18
X12: PID – Product/Item Description (843)	18

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

Purpose

The purpose of this document is to make recommendations on utilizing the ASC X12 840 Request for Quotation and ASC X12 843 Response to Request for Quotation transactions to facilitate the electronic transfer of pre-order business information.

Any implementation method should be agreed upon by trading partners. This may include what specific pieces of data are sent and received. It is the intent of this document to make interpretation of the 840 and 843 transactions more consistent, so that implementations are based upon common practices.

ADDITIONAL REFERENCES :

EIDX Business Models: Pre-OrderModels (August, 1996).

EIDX Implementation Recommendations for Product and Other Identifiers (June 1997)
(Published May 1996).

EIDX Implementation Recommendations for Static Product Data - Specification/Technical Information
(March 1997)

EIDX Implementation Recommendations for Bill of Materials - Specification/Technical Information
(project on-hold)

Issues Log for Pre-Order Models, Transactions and Messages Transaction Guideline, 840 Request for Quotation, Version 003050 Transaction Guideline, 843 Response to Request for Quotation, Version 003050

STANDARDS VERSION

Data segment and element positions referred to in this document are particular to ASC X12 Version 003050. Users of this document may need to adapt information when applying these recommendations to other standards versions.

Abbreviations Used

ANSI	American National Standards Institute
ASC X12	Accredited Standards Committee X12 (ANSI)
AVL	Approved Vendor List
EDI	Electronic Data Interchange
RFQ	Request for Quotation
RRFQ	Response to Request for Quotation
UN-EDIFACT:	United Nations - EDI For Administration, Commerce and Trade

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

Section 1 - Definitions

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

General Information

The information in this section is a summary overview. For further information refer to *EIDX Business Models: Forecast/Planning Models (draft February 1996)*.

DEFINITION OF REQUEST FOR QUOTATION

A Request for Quotation (RFQ) is a business document which can be used by potential buyers to solicit information pertaining to price, availability, lead time etc. for components or assemblies from sellers of goods and services.

An RFQ may be one of the following types: Bid for Bid, or Bid for Buy. In the former case, the potential buyer is merely soliciting information from the seller with no firm intent to buy. An example of this type might be expressed as: *"I would like to buy from you 1,000 widgets if I win the business from my potential customer."* In the latter case, the potential buyer is soliciting information with an intent to buy either from them, or another seller. An example of this case might be expressed as: *"I need to buy 1,000 widgets by the end of the month. Do you have them? How much are they?"*

Also, each item on an RFQ *may* have an approved vendor and vendor part number listing (AVL). This information may be conveyed so the seller can quote some, none, or all of the part substitutions listed.

Transaction / Message Used

In ASC X12, the 840 Request for Quotation transaction is used. In UN-EDIFACT, the REQUOT Request for Quotation message is used.

DEFINITION OF RESPONSE TO REQUEST FOR QUOTATION

A Response to Request for Quotation (RRFQ) is a business document which can be used by potential sellers to provide information pertaining to price, availability, lead time etc. for components or assemblies to potential buyers. This document is typically sent in response to an RFQ.

Transaction / Message Used

In ASC X12, the 843 Response to Request for Quotation transaction is used. In UN-EDIFACT, the QUOTES Quotation message is used.

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

**Section 2 – Request for Quote (840) and Response to Request for Quote
(843) Recommendations**

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
 QUOTATION PROCESS RECOMMENDATIONS**

Identification of Request for Quote Type

X12: BQT – BEGINNING SEGMENT FOR REQUEST FOR QUOTATION (840)

The electronics industry has identified five different types of quotes. The BQT06 Purchase Order Type Code on the BQT segment is used to specify the type of quote. Following is the EIDX definition of the five types:

<u>X12 BQT06 (DE92)</u>	<u>MEANING/ USED FOR</u>	<u>COMMENT</u>
SA	Stand-Alone/ Spot Buy Quote	To specify a spot buy quote. Spot buy is the most common in the industry. It asks the basic questions of when can I have it and how much will it cost? This is used more for generic devices that have multiple suppliers
BE	Blanket Order, Estimated Quantities/ Purchase Agreement Quote	To specify the purchase agreement for prices or annual PA quote type. EDI is used more for this type of quote than the other types. In the electronics industry, we normally try to establish a contract price for a product instead of negotiating the price with every sale. A contract is typically one year in the industry. The buyer will specify the quantity they wish to buy over the life of the agreement and the supplier will discount the list price based on the anticipated volume. Both consider the trend of the marketplace. A purchase agreement is common where a buyer and supplier are trying to establish a long term partnership, much the same as an EDI agreement. EDI is used more for this transaction because of the volume of data that can be involved..
TM	Time and Materials/ Time and Materials Quote	Used if you are trying to receive information similar to what is obtained via a Purchase Agreement Quote, but you are also desiring lead times.
SS	Supply or Service/ Delivery Quote	Used to designate a delivery quote. The question here is not the price, but when can you deliver or can you deliver before our normal lead time? Usually a purchase agreement has been established between the two trading partners when using a delivery quote.
BD	Bidding/ Budgetary Quote	used to designate a budgetary quote for price. A budgetary quote is used to determine the price of a prospective purchase, but it usually has a longer lead time and more of a “what if” inquiry than the spot buy. A budgetary quote may also be used to solicit lead times for parts. The BQT06 for a lead time quote is “BK.” The budgetary quote is seen more in the government contracts and sub-contracting arenas. It will typically ask for the price breaks for 1,000 units, 10,000 units, and 50,000 units for the same device, as an example. This information is usually used for determining a bid amount on a project.

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

OS	Special Order/ Meet Comp Quote	Used to designate a meet comp or meet competitor pricing or delivery quote. This quote is the more complex of the quote types. A meet comp quote is used by the buyer to inquire to a supplier if he/she is willing to lower his/her price, or make a delivery to make a sale. This is used primarily between a distributor and a supplier. The distributor is asking the supplier to lower its price in-line with another supplier of a comparable product to make the sale. This may be after the product has already been shipped to the distributor. This is more complex because of the transaction interaction that is described later in this manual. It may require information about who is the competition, what is their price, and how can their price be verified.
----	-----------------------------------	---

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

End Customer Identification

X12: N1 - NAME (840)

In the case of Contract Manufacturers who are buying parts in order to build product for a customer, their customer may have special pricing with suppliers, and would like that special pricing given to the Contract Manufacturer who is buying on their behalf. In order for the supplier to know this, the Contract Manufacturer must divulge the end customer on the RFQ to obtain the correct pricing.

The end customer may be identified in ASC X12 via the N1 segment.

X12 N101 (DE 98)	Entity Identifier Code	Comment
PG	Prime Contractor	Self-explanatory

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

Competition Name

X12: PO3 - ADDITIONAL ITEM DETAIL (840)

Often when a distributor is sending an RFQ to a manufacturer, the competition needs to be identified for some or all of the items. This information can be used to obtain better pricing from the manufacturer.

The name of the competition may be identified using the PO3 segment element 08. The target (desired) price may be indicated using elements 03 and 04 in this same segment. This segment is typically used to identify additional item information involving variations in the normal price/quantity structure. This use of this segment is optional.

X12 PO301 (DE 371)	Entity Identifier Code	Comment
C6	Other Limitations	The is the change reason code which could be used when PO308 is used to identify the competition

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
 QUOTATION PROCESS RECOMMENDATIONS**

Approved Vendor List

X12: PO1 - BASELINE ITEM DATA (840 AND 843)

Sometimes a potential buyer may be looking to buy a certain part, and may specify which manufacturers are “approved” as the source for this part. An example of this may be: A buyer is looking to buy 1 inch brass screws, and manufacturers A, B, C and D all make them. However, the buyer hasn’t had good luck with manufacturer D, so they only approve of manufacturers A, B and C as sources. In this example, manufacturers A, B and C are on the buyer’s Approved Vendor List for the 1-inch brass screws.

Approved Vendor List (AVL) information is critical to the pre-order process, however the structure of the 840 RFQ is not conducive for easily communicating this information. Each part on the AVL must be sent as a separate line item so that the seller can respond to it, if desired, with all of the pertinent information on 843 RRFQ. However, by sending each part as a separate line, there must be a way to tie lines together that are part of the same AVL. If you don’t do this, the seller will not understand that the quantities for the different parts are an “or” situation, not an “and.” Example: “I need 100,000 of this part, *or* this one, *or* this one.” Not: “I need 100,000 of this part, *and* this one, *and* this one.”

To tie the AVL together, the “controlling part” must be included on each line of the AVL. For example: if in your system you assign one part number that represents an AVL, your part is the “controlling part” which ties the entire AVL together. The following illustrates this technique:

Your part number:	123456
Part description:	1-inch brass screw
AVL:	
<u>Manufacturer</u>	<u>Manufacturer’s Part Number</u>
ABC Company	ABC123559
Better Tools, Inc.	199555JK
Fasteners, Inc.	654645A45

Another method is if you use your customer’s part number to tie the AVL together, or be the “controlling part.” The following illustrates this technique:

Your Customer’s PN:	C1995HCJ	
Part description:	1-inch brass screw	
AVL:		
<u>Your Part Number</u>	<u>Manufacturer</u>	<u>Manufacturer’s Part Number</u>
123456	ABC Company	ABC123559
561123	Better Tools, Inc.	199555JK
533325	Fasteners, Inc.	654645A45

Because of these limitations, the following recommendations are made for conveying AVL information on an 840 RFQ when it is necessary to do so.

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

LINE SEQUENCE NUMBER

The line sequence number (PO101) should increment for each occurrence of the PO1 segment, even if the PO1 segment is indicating a substitute (AVL) for another item on a prior PO1 segment. The line sequence number is typically a key field in the recipient's system, therefore it must be unique.

PART IDENTIFICATION

Part identification should follow the guidelines set forth in the *Product Identification and Other Qualifiers* Support Document. However, in the case of an AVL, some special handling is needed.

For communicating an AVL, the following PO1 structure is recommended:

Segment/ Element	Description	Value	Comment
PO101	Assigned Identification	assigned by sender of the 840	This is where the line sequence number is placed. This value should increment for each occurrence of the PO1 segment
PO102	Quantity		The total quantity requested for quote. This value should be sent for each line of the AVL.
PO103	Unit of Measure	"EA" (Each)	Each. This value should be sent for each line of the AVL.
PO104	Unit Price		
PO105	Basis of Unit Price Code		Use appropriate code
PO106	Product/Service ID Qualifier	"BP" (Buyer's Part Number) <i>or</i> "PC" (Prime Contractor)	This value should be sent for each line of the AVL as a "controlling" value. If this value changes, the receiver can assume they are beginning a new AVL. Refer to the previous explanation and examples.
PO107	Product/Service ID		Buyer's Part Number. This same value should be sent for each line of the AVL.
PO108	Product/Service ID Qualifier	"MF" (Manufacturer)	This value should only be sent for the first line of the AVL.
PO109	Product/Service ID		Manufacturer. This value should only be sent for the first line of the AVL.
PO110	Product/Service ID Qualifier	"MG" (Manufacturer's part number)	This value should only be sent for the first line of the AVL.
PO111	Product/Service ID		Manufacturer's part number. This value should only be sent for the first line of the AVL.
PO112	Product/Service ID Qualifier	"RP" (Replacement part)	This value should be sent for subsequent lines on an AVL. That is, it should not be sent for the first line on an AVL.
PO113	Product/Service ID		Manufacturer. This value should only be sent for subsequent lines on an AVL.
PO114	Product/Service ID Qualifier	"MG" (Manufacturer's part number)	This value should only be sent for subsequent lines on an AVL.
PO115	Product/Service ID		Manufacturer's part number. This value should only be sent for subsequent lines on an AVL.

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

Example

We have a buyer's part number 10369884, which any of the following parts are acceptable substitutes for (the AVL): Motorola part number MC74HC32AD; Texas Instruments part number SN74HC32D; and Toshiba part number TC74HC32AF. If the buyer wishes to buy 18,000 of that part, the following illustrates the mapping for this example:

PO1*1*18000*EA**AP*BP*10369884*MF*MOT*MG*MC74HC32AD
PO1*2*18000*EA**AP*BP*10369884*****RP*TI*MG*SN74HC32D
PO1*3*18000*EA**AP*BP*10369884*****RP*TOSHIBA*MG*TC74HC32AF

EQUIVALENTS

If a buyer would like the seller to quote any equivalent for a given part (as opposed to identifying an entire AVL), a second PO1 segment should be sent with "OPEN" identified after the RP code. Example:

PO1*1*18000*EA**AP*BP*10369884*MF*MOT*MG*MC74HC32AD
PO1*2*18000*EA**AP*BP*10369884*****RP*OPEN

RANKING WITHIN AN AVL

Within an AVL, a buyer may have certain preferences that should be taken into account by the seller. For example, a buyer may approve of manufacturer's A, B, and C, however their first preference would be to buy from A. However if A doesn't have stock or is higher priced, then they will accept B or C as the source.

Again, since the structure of the 840 does not provide a means to indicate this preference, it is recommended that the order of the AVL implies the rank. That is, the part listed first is the buyer's first choice, the second part is their second choice, and so on. While this may not be valid in all cases (some customers do not have such ranking philosophies), it is felt that suppliers know their customers and will still be able to adequately respond to the RFQ. This issue should be discussed between trading partners prior to implementation of the pre-order business process.

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

Program Code

X12: PID - PRODUCT/ITEM DESCRIPTION (840 AND 843)

Some parts may be programmed according to a certain specification by the potential seller on the buyer's behalf. Often, this programming must be identified by the buyer in the pre-order process so the seller can accurately price the product.

In ASC X12, a program code should be identified in the PID segment.

X12 PID02 (DE 750)	Product/Process Characteristic Code	Comment
PG	Program	Self-explanatory. DE750 should contain the code which thoroughly identifies the programming necessary for the part

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

Quantities Requested for Quote

X12: FST - FORECAST SCHEDULE (840)

Since the RFQ is a part of the pre-order process which thereby does not infer a firm commitment, it is recommended that quantity(ies) and date(s) be indicated in the FST (Forecast Schedule) segment rather than the SCH (Line Item Schedule) segment. The FST segment implies a “best guess” and therefore no commitment on the part of the buyer, whereas the SCH segment is typically used to indicate a firm schedule for delivery.

At a minimum, there should be one FST segment per PO1 segment. However, there may be multiple FST segments per PO1 if the buyer wishes to communicate more than one quantity and time range.

X12 FST02 (DE 680)	Forecast Qualifier	Comment
D	Planning	Forecasted quantity
X12 FST03 (DE 681)	Forecast Timing Qualifier	Comment
A	Annually	Quantity to be used/ordered in one year beginning in specified date
D	Discrete	Discrete quantity
M	Monthly Bucket	Quantity to be used/ordered in one month beginning in specified date
Q	Quarterly	Quantity to be used/ordered in 3 months beginning in specified date
S	Semi-annually	Quantity to be used/ordered in 6 months beginning in specified date

Use of the FST segment on the 843 RRFQ is not encouraged due to the fact that the quantity price break information is conveyed in the CTP segment on the RRFQ.

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
 QUOTATION PROCESS RECOMMENDATIONS**

Price Authorization Number and Expiration
--

X12: REF - REFERENCE NUMBERS (843)

X12: DTM - DATE/TIME REFERENCE (843)

Price authorization information may be conveyed in an RRFQ at the header or detail level. This information may be used for reservation of parts and/or pricing. The authorization number should be identified in the REF (Reference Numbers) segment, element REF02.

X12 REF01 (DE 128)	Reference Number	Comment
BB	Authorization number	

Example:

REF*BB*9822661	The price authorization number is 982261.
----------------	---

The authorization expiration should be identified in the ASC X12 DTM (Date/Time Reference) segment, element 02.

X12 DTM01 (DE 374)	Date/Time Qualifier	Comment
036	Date Coverage Expires	Expiration of this Quote

Example

DTM*036*961231	The expiration date is 12/31/96.
----------------	----------------------------------

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
 QUOTATION PROCESS RECOMMENDATIONS**

Price Structure

X12: CTP - PRICING INFORMATION (843)

Many times simply filling in the price field on the PO1 segment does not adequately convey all pricing information on the RRFQ. Doing that would also leave the buyer wondering where the price came from. Also, if the buyer indicated different quantities, the seller may need to respond with a price specific to each volume and/or time bucket.

The ASC X12 CTP segment provides a means for communicating this information.

X12 CTP01 (DE 687)	Class of Trade Code	Comment
AG	Agent	Manufacturer's Representative
DI	Distributor	
MF	Manufacturer	
X12 CTP02 (DE 236)	Price Identifier Code	Comment
CON	Contract Price	
MIN	Minimum Order Quantity Price	
PAP	Protection Level Price	
PAQ	Price Break Quantity(ies)	
PRP	Promotional Price	
PUR	Purchase	
QTE	Quote Price	
RES	Resale	

Example

A distributor has the following price structure: \$0.98 for quantities up to 5,000; and \$0.91 for quantities from 5,001 to 10,000. This would be mapped as:

CTP*DI*PAQ*.98*5000*EA****PE
CTP*DI*PAQ*.91*10000*EA****PE

Note: The quantity identified on the CTP segment does not have to match the quantity on the FST segment of the 840.

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
QUOTATION PROCESS RECOMMENDATIONS**

Minimum Order Quantity and Multiple Order Quantity

X12: QTY - QUANTITY (843)

Many buyers require the seller to provide minimum order quantity and multiple order quantity for each item so their MRP will correctly plan orders.

STOCK LEVEL

Sometimes the supplier with quantity on-hand may be the deciding factor of who wins the business if product is needed right away. Therefore, this information can be critical to the pre-order process.

STANDARD PACKAGE QUANTITY

For some trading partners, the standard package quantity is important information that must be a part of the pre-order process. While there is no specific segment, element or code within the 843 RRFQ transaction set which is for indicating standard package quantity, it is recommended to use the ASC X12 QTY segment when this information is needed. The particular code selected for use in the QTY01 should be mutually agreed upon between trading partners prior to implementation.

X12 QTY01 (DE 673)	Quantity Qualifier	Comment
33	Quantity Available for Sale (stock quantity)	It must be understood by the buyer that stock quantity is a dynamic thing, and may not be accurate by the time an actual order is placed.
57	Minimum Order Quantity	
69	Incremental Order Quantity	Multiple order quantity

SUPPLY CONSTRAINTS

Information regarding allocation status or end of life information should be identified in the PID segment in the same manner as outlined in the *Implementation Recommendations for Specification/Technical Information (841) Transaction*.

Segment/ Element	Description	Value	Comment
PID01	Item Description Type	“S” (structured)	From an industry code list
PID02	Product/Process Characteristic Code	“08” (product)	
PID03	Agency Qualifier Code	“EX” (EIDX)	
PID04	Product Description Code	“PST” (part status code)	
PID05	Description		Use one of the codes identified in the <i>Implementation Recommendations for Specification/Technical Information (841) Transaction</i> .

**ELECTRONICS INDUSTRY DATA EXCHANGE (EIDX)
 QUOTATION PROCESS RECOMMENDATIONS**

Product Liability

X12: PID – PRODUCT/ITEM DESCRIPTION (843)

Liability and return privileges for an item are important pieces of information that a buyer may require from a seller.

Please refer to the product liability matrix identified below:

X12 PID05 (DE 352)	Cancelable?	Cancellation Fees?	Returnable?	Return Fees?	Comments
R	N	N	N	N	Non-cancelable; non-returnable
CNNR	Y	N	N	N	Cancelable (no fees); non-returnable
CFNR	Y	Y	N	N	Cancelable (with fees); non-returnable
CFRF	Y	Y	Y	Y	Cancelable (with fees); returnable (with fees)
CNRN	Y	N	Y	N	Cancelable (no fees); returnable (no fees)
CNRF	Y	N	Y	Y	Cancelable (no fees); returnable (with fees)
F					Contact Factory (source)

It is recommended to follow the PID format identified in the *Implementation Recommendations for Specification/Technical Information (841) Transaction*, under the section for dynamic product attributes when conveying product liability or limitations.

Segment/ Element	Description	Value	Comment
PID01	Item Description Type	“S” (structured)	From an industry code list
PID02	Product/Process Characteristic Code	“08” (product)	
PID03	Agency Qualifier Code	“EX” (EIDX)	
PID04	Product Description Code	“LIM” (limitations)	
PID05	Description	Use one of the codes identified in the matrix above	