INTERNET PARTS ORDERING

Functional Implementation Guide
Version 3.0 Specification
# Table of Contents

Introduction.........................................................................................................................4
  Intended Audience.............................................................................................................4
  Previous Releases of the IPO Specification......................................................................4
  Development of IPO v3....................................................................................................5
  Special Orders..................................................................................................................6
  Stocking Orders................................................................................................................7
  Related Documents.........................................................................................................8
  eCommerce Hubs...............................................................................................................8
  Service Oriented Architecture........................................................................................10
  IPO Approach to Web Services Interaction....................................................................10
  IPO Document Basics......................................................................................................11
  Extensible Markup Language........................................................................................11

Document Structure..........................................................................................................12
  XML Schema....................................................................................................................12
  Header and Line Structures............................................................................................14
  Document Attributes.......................................................................................................15
  Application Area............................................................................................................15
  Data Area Information....................................................................................................16

Synchronous and Asynchronous Exchange Patterns.........................................................19
  Asynchronous Interaction..............................................................................................19
  Synchronous Interaction...............................................................................................20
  Synchronous Interaction – Delayed Processing.............................................................21
The Confirmation Exchange Document .................................................... 24
   SOAP Faults .............................................................................................................. 24
  5.2. ApplicationArea ................................................................................................... 26
     DataArea/Confirm/Header ......................................................................................... 27
Quote Exchange Document Patterns ................................................................. 30
   Application Area Reference ID Information............................................................... 32
   Data Area Information ................................................................................................ 32
   RequestForQuote - Base Document Content ............................................................... 33
   Quote – Base Document Content .............................................................................. 46
   Quote Exchange Documents ..................................................................................... 68
PurchaseOrders Exchange Document Patterns ........................................ 92
   Application Area Information ...................................................................................... 94
   Data Area Information .............................................................................................. 95
   PurchaseOrder – Base Document Content ................................................................. 105
   PurchaseOrder Documents ...................................................................................... 115
Shipment Exchange Document Patterns ................................................ 147
   Exchanging Multiple Shipping Documents to Complete an Order ......................... 149
   Application Area Reference ID Information ............................................................... 151
   Data Area Information .............................................................................................. 152
   Freight Terms in Shipping Documents ..................................................................... 162
   Shipment - Base Document Content ........................................................................ 164
   Shipment Exchange Documents .............................................................................. 173
Invoice Exchange Document Patterns ......................................................... 178
Notice

The Auto Care Association, formally Automotive Aftermarket Industry Association (AAIA), makes no warranty of any kind regarding this material, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Auto Care Association shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

©Copyright 2003 - 2014 Auto Care Association

This document contains proprietary information, which is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of the Auto Care Association. The information contained in this document is subject to change without notice.
Introduction

Welcome to the Internet Parts Ordering (IPO) standard. Your company will join a broad industry coalition working to improve the speed and efficiency of the automotive aftermarket supply chain after implementing the specification defined in this document.

Intended Audience

This documentation is provided to assist companies in their adoption of the IPO standard, developed under the direction of the Technology Standards Committee of the Auto Care Association.

This guide was designed to address business and functional requirements related to IPO adoption, such as document design, XML content models and document exchange patterns; issues typically of interest to readers with one or more of the following responsibilities:

- Project managers leading an IPO implementation
- Business managers responsible for identifying and prioritizing the document content necessary to complete an order cycle with their company
- IT architects and developers designing the enterprise integration solutions required to support the exchange of IPO documents
- Potential trading partners
- Third party Software solution providers assisting the adopter with their implementation

This guide describes the document exchange processes conducted between business partners and the content of documents they exchange. Since the IPO specification makes no attempt to address integration of an IPO web server or client application with existing trading partner systems, each company must determine the way to collect and process the information used in an IPO collaboration.

Previous Releases of the IPO Specification

IPO v1.x Specification

The first release of the IPO standard was published in fall 2003. That Initial release of IPO was based on the OAGIS business vocabulary, defined by the Open Applications Group Incorporated (OAGI). OAGI is a not-for-profit industry consortium whose purpose is to promote interoperability between business software
applications through the exchange of standardized XML documents. The first Auto Care Association
workgroup reasoned that by simply extending the OAGIS specification they could avoid developing their
own business vocabulary. But in practice the broad business vocabulary in OAGIS proved to be as much
of a barrier to adoption as it was an enabler. Many potential IPO adopters were put off by the generic
nature of OAGIS XML tag definitions, seeing them as confusing and ambiguous. They also believed the
nature of the OAGIS architecture resisted extension; and its reliance on multiple levels of inheritance
added unnecessary complexity to document processing. The last release of an OAGIS conformant IPO
specification is IPO v1.21 published in March 2005. While some early adopters of IPO continue to use
this version with established trading partners, IPO v1.21 was deprecated by the Auto Care Association
Technology Standards Committee in 2010, i.e., IPO 1.21 remains a valid but unsupported version of IPO.

IPO v2.x Specification

Development of a new version of IPO independent from OAGIS began in 2007 with the creation of an
aftermarket specific XML vocabulary. Starting with the Auto Care Association extensions defined in
OAGIS in IPO v1.x, adding aftermarket specific definitions from other Auto Care Association standards
such as ACES, PIES and iSHOP, they defined the first Auto Care Association metadata catalog.
Subsequent analysis removed overlapping definitions from these independent sources and yielded over
eight hundred aftermarket specific metadata elements that were used in the development of IPO v2
document structures. The last distribution of IPO v2 is version 2.01, published September 2010. This
release remains a valid and supported version of the IPO standard but ongoing development will focus on
IPO v3.

Development of IPO v3

Development of this latest version of IPO began in 2010 under the IPO v2.1 Charter, approved by the
Auto Care Association Technology Standards Committee (TSC) simultaneously with their release of IPO
v2.0. While the IPO v2 work group was satisfied this new specification addressed all the requirements of
their charter, they had discovered additional opportunities outside the scope of their charter to improve
the IPO Shipment and Confirmation documents. So the TSC approved an IPO v2.1 Charter, charging two
new work groups with completing the remaining work on IPO Confirmation and Shipment documents.
The IPO v2.1 Confirmation work group completed their analysis and published a ‘Best Practice
Recommendation’ document, focused on improving the quality of information provided by the
Confirmation document. The only structural change the group recommended was the addition of the
same document identifier/reference components used by every other IPO exchange document.
But the Shipment work group faced a more difficult task, as the scope of their analysis continued to expand beyond their charter. In the end, this led to their conclusion that a new IPO Shipment document should meet the same requirements as an Electronic Data Interchange (EDI) Advanced Ship Notice (ASN). Once IPO was able to deliver ASN functionality, the only piece missing for end-to-end coverage of the order cycle was an Invoice document. Once these deficiencies were corrected, IPO could support stock orders as well as special orders.

The Technology Standards Committee supported the work group’s assessment and approved the Stock Orders charter, extending the functionality of IPO to serve as a functional replacement for EDI or as a near-time compliment to existing EDI document exchange.

Considering the breadth and depth of change recommended by this new charter, subcommittee leadership determined this new release would be named IPO v3.

**Special Orders**

Providing an accurate description of special orders is difficult because different segments in the aftermarket supply chain use various names when referring to that type of order, such as emergency, factory, warehouse or custom orders. While all of those different terms fit the broadest sense of Special Orders, they also tend to describe subtle differences between the types of products being ordered and the way in which they’re delivered. Depending on product availability, a special order may flow through several layers of distribution as illustrated in Figure 1.

![Figure 1: Physical parts flow in the aftermarket](image)

Repair facilities may specify an “emergency order” to communicate their need for immediate fulfillment. A retailer placing a “warehouse order” may use this term when ordering a slower moving product, acknowledging it may require additional time for the supplier to locate and deliver the product. The term custom order may be used when some type of specialized assembly or ad hoc manufacturing is required, such as custom seat or tonneau cover order.
When it comes to the special order process for replacement parts, the first step is seldom pacing an order. In most cases a Buyer will want to know the price and availability of a part before placing an order. There are so many unique product attributes for replacement parts that some type of real-time information exchange between Buyer and Seller is usually required to ensure the part quoted meets the Buyer’s requirements before an order is placed. In the past this exchange required a phone conversation; a resource intensive and time consuming process. IPO provides document structures designed to communicate pricing, inventory availability and estimated time of delivery so a Buyer can make a purchase decision without picking up the phone. This information can then be used to place an order and track delivery progress using other IPO collaborations.

Stocking Orders

While IPO is already recognized as a key enabler for automating the special order process, stocking orders are the most common order type. In larger companies these orders are usually created by some type of automated replenishment system and delivered to the Seller using Electronic Data Interchange (EDI). Many automotive aftermarket companies using EDI have contributed to the Auto Care Association SuperSpec EDI specification that defines the automotive aftermarket version of these documents. SuperSpec was originally developed by gCommerce through their efforts to install and manage thousands of EDI connections. gCommerce was also instrumental in extending the functionality of IPO v3 Shipment documents to ensure these can be used in combination with, or as replacements for, their EDI counterparts.

While the same IPO v3 exchange documents are used in both Stocking and Special Order scenarios, the content of those orders and sequence of collaborative processes used to exchange them may vary:

1. Special orders usually start with a Quote collaboration – we expect this to be less common for stocking orders
2. Most Buyers already have extensive product information in their systems for the products they stock; seldom the case for special order products
3. Shipping details and transportation terms are usually well established for stocking products; once again, less likely for special orders items
4. Special orders are usually time sensitive and order placement may be dependent on delivery expectations; typically this is less important for stock orders
5. Stocking orders can be quite large, especially when they’re placed for multiple lines of merchandise; Special Orders typically contain only a few line items
Section 2 of this guide contains extensive information on the IPO v3 processes and Section 3 explains the different types of exchange patterns supported in IPO.

**Related Documents**

Along with this document, readers may wish to consult the following:

- Auto Care Association Internet Parts Ordering Technical Implementation Guide. This document contains more details on implementation, including the use of web services such as SOAP and WSDL.

- IPO technical architecture is based on the web services interoperability specifications defined by the Web Services Interoperability Organization (WS-I) located at [http://www.ws-i.org/](http://www.ws-i.org/). Use cases, sample architecture, and implementation tools are among the documents available at the WS-I website.


**eCommerce Hubs**

While the IPO specification describes direct Buyer-to-Seller relationships, this isn’t meant to dismiss the role e-commerce hubs or other supply chain intermediaries may play in enabling IPO transactions. Several aftermarket service providers offer clients a valid and expedient path for IPO adoption, where the integrity of this specification is maintained throughout the document exchange process.
Process Overview

At the highest level of abstraction, the ordering process requires a series of information exchanges between Buyer and Seller. In electronic ordering, phone conversations between Buyer and Seller have been replaced with an exchange of standardized documents. Proper integration and automation of IPO processes eliminates most manual data entry and expedites trading partner review of ordering information.

Earlier in this document we alluded to the fact that some supply chain members could act as both Buyer and Seller. Manufacturers sell their finished products to members of the distribution channel but some may buy key components from external Suppliers. Part distributors and jobbers frequently act as both Buyers and Sellers, while installers are almost always Buyers since vehicle owners aren’t considered part of the aftermarket supply chain.

When it comes to special orders, the documents exchanged between Buyer and Seller roles typically progress through the stages shown in Table 1.

| **Table 1: Special Order Exchange Document Process** |
|---------------------------------|---------------------------------|---------------------------------|
| **Buyer** | **And sends a…** | **Seller** | **Responds with…** |
| Check price and availability | Request for quote | Quote |
| Buy at the quoted or published terms | Purchase order | Acknowledgement |
| Confirm that order was shipped | Status request | Advance shipment notification |

This same exchange pattern is reflected in IPO, where each side of the conversation is an electronic document, represented by the arrows shown in Figure 2:
As you might expect, the entire set of documents and exchange patterns used in IPO are a little more complicated than those in Figure 2. The goal of this guide is to describe these in detail.

**Service Oriented Architecture**

Traditional Business-to-Business (B2B) standards focused on the exchange of documents between trading partners without focusing on the services processing those documents. Messages are passed from one trading partner to another with the expectation that each partner gateway will examine an incoming document and determine what kind of processing is required. In contrast, IPO implements a Service Oriented Architecture (SOA) based on web services which turns this paradigm around. In IPO the service and its operations are the most important aspect of each collaborative exchange, while business documents are transferred as messages delivered by the web service operations.

**IPO Approach to Web Services Interaction**

This guide prescribes the specific web service operations and exchange patterns trading partners use in IPO. In a Web Services model, a service may contain multiple related operations. Figure 3 shows the relationship between the IPOWebService and the operations it exposes; Quote, CreatePurchaseOrder and ChangePurchaseOrder. The messages exchanged in these operations are shown as labeled arrows. For example, the Quote Operation accepts a request message (AddRequestForQuote) and produces a response message (AddQuote).

![Figure 3: Quote Operation](image)
This IPO v3 Functional Implementation Guide focuses on the sequencing of these exchanges and the content of the messages (business documents) delivered. The IPO v3 Technical Implementation Guide addresses the technical aspects of implementing IPO.

**IPO Document Basics**

As stated earlier, IPO documents are the messages used to exchange data between trading partners. IPO documents use a common architecture that can be used to connect one aftermarket company to another in any industry segment. These IPO documents contain business content - for instance a PurchaseOrder – that’s independent of any communication mechanism. That said though, every version of IPO prescribes the same web service Implementation framework - SOAP messaging. Refer to the IPO Technical Implementation Guide for details on SOAP messaging.

**Extensible Markup Language**

Information within an IPO document is represented in eXtensible Markup Language (XML). Most of the data in an IPO message is contained in elements, with the element name enclosed by a beginning tag that looks like `<ElementName>` and an ending tag that looks like `</ElementName>`. Elements without content, known in XML as ‘empty’ elements, aren’t allowed in IPO exchange documents and rejected during schema validation, e.g., `<ElementName />`.

Auto Care Association has been careful to select element names, also referred to as “tag names”, that are self-describing, i.e., freight terms for an order would be contained in a `<FreightTerm>` tag, while a promised ship date would be tagged `<PromisedShipDate>`. The Auto Care Association Metadata
Dictionary www.Auto Care Associationsoa.org contains a complete listing of all tag names used in IPO and all Auto Care Association standards, along with its definition and document reference(s).

You may have noticed that IPO element tag names use medial capitals where compound words or phrases comprising the element name are joined without spaces and the first letter of each word is capitalized, e.g., ElementName. This naming convention is also referred to as Pascal Case by some technologists.

In contrast attribute names use a style referred to as Camel Case, where the first letter of the tag name uses lowercase but the first letter of each subsequent concatenated word is capitalized, e.g., attributeName.

As you begin working with IPO documents you’ll also notice that some data elements are ‘nested’ to form a hierarchy, i.e., ‘parent’ data elements that contain one or more ‘child’ elements. These hierarchies were created to group related data, providing an unambiguous reference for each child element so that these may be reused in the same document, i.e., the child element <Telephone> contains a different value when the parent element is <ShipToParty> than when the parent element is <ShipFromParty>.

Document Structure

IPO documents are divided into two sections - ApplicationArea and the DataArea. The ApplicationArea in IPO v3 remains largely unchanged from earlier versions and contains information identifying the sender, the date/time that document was created and the method of collaboration - synchronous or asynchronous. In contrast, the DataArea tends to vary significantly between IPO releases and IPO v3 is no exception. Much of this guide is devoted to describing the content of each document’s DataArea.

XML Schema

IPO defines the data used in exchange documents using XML Schema. If you’re unfamiliar with XML Schema, it might help to think of it as a ‘template’ of sorts that formally describes the syntax elements and parameters used in compliant XML documents. Anything more than that cursory explanation is beyond the scope of this document. While this section provides some important details regarding the design and use of IPO schema in specific, it isn’t meant to serve as a primer for the XML Schema specification. Readers should refer to the W3C website http://www.w3.org/standards/xml/schema for more information about the XML Schema standard. As an aside, schema is an irregular noun that refers to both the singular and plural forms of the word, similar to pants or sheep.
Extending Schema

IPO schema use two primary methods to extend document content; importing and/or including other schema. Schema are organized by namespace and all named components belong to a target namespace, which is a property of the schema. However a schema may include other schema documents for the same namespace and/or import other schema documents from a different namespace. Document namespace and the use of namespace references are some of the more complex subjects in XML and these are also beyond the scope of our documentation. Suffice to say that XML namespace is heavily used by IPO and it’s in the best interests of every potential IPO adopter to assign someone in their organization with the task of reviewing and managing the namespace references used in their company’s IPO XML documents. This investment will pay huge dividends when it comes time to test your IPO implementation with a trading partner!

As mentioned earlier, the first version of IPO was based on the OAGIS document structure which is very deeply nested by design; OAGIS documents are composed of Verbs and Nouns, Nouns are composed from Components, and Components from Fields. Each of these constructs is defined by its own complex data type. Parsing such deeply nested documents can be a real challenge for many XML parsers and this was one of the driving forces in moving away from the OAGIS model.

IPO Base Schema

Starting with IPO v2 and continuing in this version, exchange documents use a shallow nested structure compared with OAGIS. Each IPO exchange document includes XML datatypes from a single base schema of that document type, each of which imports datatypes from the same common base schema.

- **Common schema** – the forty plus complex data structures reused by all IPO documents are contained in this single schema. This design approach simplifies maintenance by providing a single location for modifying those data types, along with their elements, attributes and enumerated values.

- **Exchange document base schema** – with one exception, exchange documents are grouped by IPO exchange patterns – Quote, Purchase, Shipment, and Invoice. Documents within each of these groups share the same Data Area structure, e.g., GetInvoice, ShowInvoice. In practice each exchange document in that group includes the same base schema and this base schema imports structures from the single Common base schema.
There are two exceptions to this structure. Because the DataArea in AddRequestForQuote doesn’t need the Subline structure used in AddQuote, a separate RequestForQuote Base schema was defined to accommodate that difference.

The other exception is the Confirmation document. Its purpose is unique in IPO collaborations and so is its structure. Section 4 of this document provides a detailed explanation of the Confirmation document and its use.

Aside from these exceptions, collaborative exchange documents share the same base schema. Table 2 shows which Base Schema is included in each of the thirteen exchange documents.

Table 2: Base Schema Document Reference

<table>
<thead>
<tr>
<th>Exchange Document</th>
<th>Base Schema</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote.xsd</td>
<td>RequestForQuote.xsd</td>
</tr>
<tr>
<td>AddQuote.xsd</td>
<td>Quote.xsd</td>
</tr>
<tr>
<td>GetQuote.xsd</td>
<td>Quote.xsd</td>
</tr>
<tr>
<td>ShowQuote.xsd</td>
<td>Quote.xsd</td>
</tr>
<tr>
<td>ProcessPurchaseOrder.xsd</td>
<td>PurchaseOrder.xsd</td>
</tr>
<tr>
<td>AcknowledgePurchaseOrder.xsd</td>
<td>PurchaseOrder.xsd</td>
</tr>
<tr>
<td>CancelPurchaseOrder.xsd</td>
<td>PurchaseOrder.xsd</td>
</tr>
<tr>
<td>GetPurchaseOrder.xsd</td>
<td>PurchaseOrder.xsd</td>
</tr>
<tr>
<td>ShowPurchaseOrder.xsd</td>
<td>PurchaseOrder.xsd</td>
</tr>
<tr>
<td>GetShipment.xsd</td>
<td>Shipment.xsd</td>
</tr>
<tr>
<td>ShowShipment.xsd</td>
<td>Shipment.xsd</td>
</tr>
<tr>
<td>GetInvoice.xsd</td>
<td>Invoice.xsd</td>
</tr>
<tr>
<td>ShowInvoice.xsd</td>
<td>Invoice.xsd</td>
</tr>
<tr>
<td>Confirmation.xsd</td>
<td>Confirm.xsd</td>
</tr>
</tbody>
</table>

Header and Line Structures

With the exception of the Shipment and the Confirmation documents, exchange document Base Schema structures are further organized into two major hierarchies, Header and Line. Shipment has the slightly different structure of Header and ShipUnits and Confirmation requires a very different Data Area reflecting its unique purpose.
Header and Line structures are used in all versions of IPO for two reasons:

1. They help organize the document data into logical groups. For example, the BillingParty component contains information about the person or company paying for the order. That component is located in the Header because it’s applicable to the entire document. Other components such as the BackOrderQuantity apply to a single line item, so these are found in the Line component.

2. Retaining these established structures expedites adoption of new releases of IPO. While the structure of individual components within them may be significantly "flatter" in newer versions, the retention of these commonly used declarations from prior versions expedite the transition from one release to the next. Given a current IPO user retains the same collaborative communication style - synchronous or asynchronous – they should be able to reuse most of their existing integration maps.

Document Attributes

Each exchange document in IPO v3 contains three document level attributes. Two of these specify the release and version of IPO schema that should be used to validate its content. The other attribute indicates whether the document is being used for testing or production.

attributes/

releaseId: Used to identify the release of an IPO distribution, e.g., 1.2, 2.0, 3.0, etc.

versionId: Used to identify the version of a specific IPO document within an IPO distribution, e.g., 1.21, 2.01, etc.

environment: Test or Production

Application Area

The structure of ApplicationArea is identical in all IPO v3 exchange document schema. This area is used to synchronize information between trading partner business applications, primarily in identification, authentication and authorization.

DocumentGUID – Required: A Globally Unique Identifier (GUID) that makes each document instance uniquely identifiable. This is necessary to create legally binding transactions, to enable transaction logging and exception handling, and facilitate re-sending and receipt confirmation.

Sender/ - Required
ReferenceId - Required: This element contains the GUID of the referenced document, providing an audit trail back to the original message.

Confirmation – Required: This element contains a:

- “1” when an asynchronous communication with confirmation or synchronous communication with delayed response exchange pattern is used.
- “0” when asynchronous communication without confirmation or synchronous communication with immediate response patterns are used.

CreationDateTime - Required: The date and time when the document instance was created and sent, which is not necessarily identical to when the message content was created on the host application. It is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Coordinated Universal Time (UTC) represented as ±hh:mm, or the letter Z if the local time is identical to UTC. For example, to indicate 2:45 pm on August 18, 2003 for Central Standard Time, which is 6 hours behind UTC (formerly known as Greenwich Mean Time), as follows:

  <CreationDateTime>2003-08-18T14:45:00-06:00</CreationDateTime> or
  <CreationDateTime>2003-08-18T20:45:00Z</CreationDateTime>

Data Area Information

While the ApplicationArea structure is identical in every exchange document, DataArea content varies between document types, e.g., quote, purchase order, etc. That’s because the DataArea serves as a container for the document structures included in the base schema, each of which is uniquely designed for that specific collaborative exchange process. See section Base Schema 3.1.2 for more information.

An important characteristic of IPO v3 DataArea is the one-to-many relationship with an included base schema, i.e., the base schema may repeat to reference multiple orders. This is a departure from IPO v2.x design which typically supported a single instance of those base schema structures. After careful consideration, the IPO v3 work group decided to return to this more flexible IPO v1.x design characteristic that enables some important new functionality, such as the exchange of information for multiple orders in a single IPO v3 Shipment document.

Document Identifiers and References

Document and document reference identifiers also vary between IPO releases. IPO V3 continues to refine the document identifier convention established in Release 2 to more easily identify the origin of the
Id. This convention helps differentiate between the creation of a new identifier and a reference to an existing identifier.

**Document Ids**

There are two types of document Ids defined in IPO v3:

1. CustomerDocumentId – a document identifier generated by the Customer
2. SupplierDocumentId – a document identifier generated by the Supplier

These document identifiers are “wrapped” in components named for the document creating them. Table 3 shows the two Document Ids within their four component structures:

<table>
<thead>
<tr>
<th>Id</th>
<th>Originated by</th>
<th>Originating Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;CustomerRFQDocumentId&gt;</td>
<td>Customer</td>
<td>AddRequestForQuote</td>
</tr>
<tr>
<td></td>
<td>&lt;CustomerDocumentId&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;/CustomerRFQDocumentId&gt;</td>
<td></td>
</tr>
<tr>
<td>&lt;SupplierQuoteDocumentId&gt;</td>
<td>Supplier</td>
<td>AddQuote</td>
</tr>
<tr>
<td></td>
<td>&lt;SupplierDocumentId&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;/SupplierQuoteDocumentId&gt;</td>
<td></td>
</tr>
<tr>
<td>&lt;CustomerPurchaseOrderId&gt;</td>
<td>Customer</td>
<td>ProcessPurchaseOrder</td>
</tr>
<tr>
<td></td>
<td>&lt;CustomerDocumentId&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;/CustomerPurchaseOrderId&gt;</td>
<td></td>
</tr>
<tr>
<td>&lt;SupplierSalesOrderId&gt;</td>
<td>Supplier</td>
<td>AcknowledgePurchaseOrder</td>
</tr>
<tr>
<td></td>
<td>&lt;SupplierDocumentId&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;/SupplierSalesOrderId&gt;</td>
<td></td>
</tr>
</tbody>
</table>

**Document References**

Once a Document Id is generated, it’s returned in subsequent document(s) as a Document Reference. Similar to the wrappers used in the creation of Document Ids, Document Reference components also “wrap” the two Document Ids with names identifying the nature of the Reference, as shown in Table 4:
Table 4: Document References

<table>
<thead>
<tr>
<th>Reference</th>
<th>Returned by</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;CustomerRFQDocumentReference&gt;</td>
<td>Supplier</td>
<td>AddQuote</td>
</tr>
<tr>
<td>&lt;CustomerDocumentId&gt;&lt;/CustomerDocumentId&gt;</td>
<td>Customer Supplier</td>
<td>ProcessPurchaseOrder</td>
</tr>
<tr>
<td>&lt;/CustomerRFQDocumentReference&gt;</td>
<td></td>
<td>AcknowledgePurchaseOrder</td>
</tr>
<tr>
<td>&lt;SupplierQuoteDocumentReference&gt;</td>
<td>Customer Supplier</td>
<td>ProcessPurchaseOrder</td>
</tr>
<tr>
<td>&lt;SupplierDocumentId&gt;&lt;/SupplierDocumentId&gt;</td>
<td></td>
<td>AcknowledgePurchaseOrder</td>
</tr>
<tr>
<td>&lt;/SupplierQuoteDocumentReference&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;CustomerPODocumentReference&gt;</td>
<td>Supplier Customer</td>
<td>AcknowledgePurchaseOrder</td>
</tr>
<tr>
<td>&lt;CustomerDocumentId&gt;&lt;/CustomerDocumentId&gt;</td>
<td></td>
<td>GetShipment</td>
</tr>
<tr>
<td>&lt;/CustomerPODocumentReference&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;SupplierSalesOrderDocumentReference&gt;</td>
<td>Customer Supplier</td>
<td>GetShipment</td>
</tr>
<tr>
<td>&lt;SupplierDocumentId&gt;&lt;SupplierDocumentId&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;/SupplierSalesOrderDocumentReference&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 provides a reference for Document Ids/References by document type, showing which document generates the identifier, and when it’s referenced in subsequent documents.

Table 5: Document Ids/References by document type

<table>
<thead>
<tr>
<th>Exchange</th>
<th>Request</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quote</td>
<td>Document: AddRequestForQuote</td>
<td>Document: AddQuote</td>
</tr>
<tr>
<td></td>
<td>Customer originates:</td>
<td>Supplier originates:</td>
</tr>
<tr>
<td></td>
<td>CustomerRFQDocumentId</td>
<td>SupplierQuoteDocumentId</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier returns the reference:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CustomerRFQDocumentReference</td>
</tr>
</tbody>
</table>
Synchronous and Asynchronous Exchange Patterns

Internet Parts Ordering may be implemented using one of three collaborative patterns: asynchronous interaction, synchronous interaction with immediate response and synchronous interaction with delayed response. This section of the guide focuses on the information and process requirements for each of these patterns. The technical requirements for patterns differ substantially and potential adopters should refer to the IPO Technical Implementation Guide for more information.

Asynchronous Interaction

In asynchronous interaction, either the Buyer or Seller can initiate a message exchange. This interaction style is illustrated in Figure 4. It’s rather like an email conversation; one trading partner sends a message - then sometime later finds a response in his inbox. The dotted ovals represent individual communication sessions. Please note that this mode of interaction requires the greatest technology investment as both Buyer and Seller must host their own web server to initiate and receive IPO messages.
Figure 4: Asynchronous interaction without confirmation

Again similar to an email conversation, asynchronous message interaction may be configured to require a receipt confirmation from the recipient, as shown in Figure 5.

Figure 5: Asynchronous interaction with confirmation required

PLEASE NOTE: asynchronous exchange patterns have been retained in IPOv3 to ensure backward compatibility with earlier releases, but these patterns remain untested by IPO work groups.

Synchronous Interaction

Synchronous interaction must be used whenever a Buyer is limited to an IPO client implementation. In this case the Buyer isn’t hosting a web service and the IPO client implementation is limited to receiving Seller messages in immediate response to the requests they initiate. These Buyers may have limited technical resources - for instance they may be unable to provision a web server to accept unsolicited messages or they may be unable to validate the Seller’s identity in order to establish required secure communications. Sellers must immediately respond to requests from these Buyers – typically within a few seconds.

In contrast to our email example, you may want to think of this interaction style as a conversation between a game show host (Buyer) and a contestant (Seller), where the contestant loses his opportunity to respond if he waits too long to answer.
Synchronous implementations allow Buyers to establish brief ad hoc communications with the Seller with a minimal investment. Figure 6 provides an illustration of this type of interaction.

**Figure 6: Synchronous interaction with immediate processing**

![Synchronous interaction with immediate processing](image)

**Synchronous Interaction – Delayed Processing**

If a Seller organization doesn't have the infrastructure and/or internal processes required to support a synchronous response to a Buyer's request, IPO provides a variation that offers the Seller time to collect and assemble the information necessary to respond. In this variation Sellers immediately confirm the receipt of the Buyer’s request using a Confirmation document because the requested response is not yet available. At some later point, the Buyer polls the Seller requesting a status update. The Seller responds to the Buyer’s request with one of these two message types:

1. The exchange document requested by the Buyer, if it’s available
2. Another confirmation of receipt

This interaction style is analogous to the Buyer sending the Seller a fax and then re-faxing or calling the Seller periodically to ask if he has read it, collected the proper information and is prepared to respond.

Keep in mind that all synchronous interaction styles are Buyer-driven, where a Seller responds immediately to the Buyer message with either the expected exchange document or a Confirmation.

**Figure 7: Synchronous interaction with delayed processing**

![Synchronous interaction with delayed processing](image)
Unlike the example shown in Figure 6, the Seller in Figure 7 is unable to respond immediately to the Buyer’s request for quote. Instead the Seller’s system responds with a Confirmation document as shown in Figure 7, indicating the Buyer’s request was received but can’t be processed completely within the time allotted to complete the synchronous response. At some point the Buyer must poll the Seller periodically for the status of his request, using the GetQuote exchange document. If the quote still isn’t ready, the Seller responds to the Buyer’s GetQuote with another Confirmation. This cycle repeats until the Seller’s quote is ready, when the Seller responds with a ShowQuote document. Figure 8 below illustrates a typical Distributor (Buyer) – Manufacturer (Seller) IPO collaboration.
Figure 8: Distributor Manufacturer Collaboration
The Confirmation Exchange Document

The purpose of the Confirmation document is twofold.

- **Acknowledge receipt of an exchange document**: The expected status code values are "VALIDATED", "IN PROCESS", and "ACCEPTED".

- **Communicate errors that can't be represented in the response document**: The expected status code values are "INVALID" or "REJECTED".

**SOAP Faults**

IPO v3 guidelines regarding the use of SOAP faults are a departure from previous versions of the IPO specification. The IPO Confirmation work group discovered it can difficult to communicate error conditions between service layers in some web service stacks, i.e., applications detecting an error when parsing an IPO document can find it difficult to pass that error to the SOAP layer. A SOAP fault may also make it difficult for a web service client to retrieve and parse a Confirmation document.

This version recommends instead that SOAP faults should not be thrown from the document processing layer. Instead of generating a SOAP fault, errors encountered in processing should be communicated using a Confirmation document. Please note that this approach requires client applications to check the data type of a response document in "asynchronous" exchange patterns.

Surveying a number of IPO Suppliers on frequently occurring error conditions and exceptions, the work group recommends error conditions be grouped using the categories listed in Table 6 and codes listed in Table 7.

<table>
<thead>
<tr>
<th>Error Type</th>
<th>Code Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Service</td>
<td>1000-1999</td>
</tr>
<tr>
<td>Party Identification</td>
<td>1200-1399</td>
</tr>
<tr>
<td>Document Identification</td>
<td>1400-1599</td>
</tr>
<tr>
<td>Items</td>
<td>1600-1799</td>
</tr>
</tbody>
</table>

Table 6: Error Type Categories
### Table 7: Error Codes and Descriptions

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPO Service Unavailable</td>
<td>1010</td>
</tr>
<tr>
<td>XML Invalid</td>
<td>1020</td>
</tr>
<tr>
<td>Schema Validation Warning/Error</td>
<td>1030</td>
</tr>
<tr>
<td>BillToParty Id Missing</td>
<td>1210</td>
</tr>
<tr>
<td>BillToParty Id Invalid</td>
<td>1214</td>
</tr>
<tr>
<td>BillToParty Inactive Account</td>
<td>1218</td>
</tr>
<tr>
<td>BillToParty Credit Limit</td>
<td>1222</td>
</tr>
<tr>
<td>BillToParty Credit Hold</td>
<td>1226</td>
</tr>
<tr>
<td>ShipToParty Missing</td>
<td>1230</td>
</tr>
<tr>
<td>ShipToParty Invalid</td>
<td>1234</td>
</tr>
<tr>
<td>ShipToParty Address Invalid</td>
<td>1240</td>
</tr>
<tr>
<td>This RFQ Id Already Processed</td>
<td>1410</td>
</tr>
<tr>
<td>This PO Id Already Processed</td>
<td>1414</td>
</tr>
<tr>
<td>This BOD (GUID) Already Processed</td>
<td>1420</td>
</tr>
<tr>
<td>RFQ Id Missing</td>
<td>1430</td>
</tr>
<tr>
<td>RFQ Id Invalid</td>
<td>1434</td>
</tr>
<tr>
<td>PO Id Missing</td>
<td>1440</td>
</tr>
<tr>
<td>PO Id Invalid</td>
<td>1444</td>
</tr>
<tr>
<td>Drop Ship Indicator Missing or Invalid</td>
<td>1450</td>
</tr>
<tr>
<td>Shipping Method Invalid</td>
<td>1460</td>
</tr>
<tr>
<td>Customer Item Number Missing</td>
<td>1610</td>
</tr>
<tr>
<td>Customer Item Number Invalid</td>
<td>1614</td>
</tr>
<tr>
<td>Supplier Item Number Missing</td>
<td>1620</td>
</tr>
<tr>
<td>Supplier Item Number Invalid</td>
<td>1624</td>
</tr>
<tr>
<td>Manufacturer Item Number Missing</td>
<td>1630</td>
</tr>
<tr>
<td>Manufacturer Item Number Invalid</td>
<td>1634</td>
</tr>
<tr>
<td>Item Quantity Missing</td>
<td>1640</td>
</tr>
<tr>
<td>Item Quantity Invalid</td>
<td>1644</td>
</tr>
<tr>
<td>Item UOM Missing</td>
<td>1650</td>
</tr>
<tr>
<td>Item UOM Invalid</td>
<td>1654</td>
</tr>
</tbody>
</table>
Use of these categories and codes should limit most SOAP faults to coarse-grained exceptions occurring in the web service layer. IPO adopters are also encouraged to make their SOAP fault messages as descriptive as possible.

5.2. ApplicationArea

**DocumentGUID** – Required: A Globally Unique Identifier (GUID) makes each document instance uniquely identifiable. This is necessary to create legally binding transactions, enable transaction logging and exception handling, and facilitate re-sending and receipt confirmation.

**Sender/ReferenceId** - Required

**ReferenceId** – Required: This element contains the GUID of the referenced document, providing an audit trail back to the original message. In a GetQuote document, this content is identical to the DocumentGUID of the original AddRequestForQuote.

**Confirmation** – Required: In a Confirmation document, the content should be a "0", since the Buyer isn’t expected to confirm receipt of a Seller Confirmation document.

**CreationDateTime** – Required: The date and time when the document instance was created and sent, which is not necessarily identical to when the message content was created on the host application. It is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Coordinated Universal Time (UTC) represented as ±hh:mm, or the letter Z if the local time is identical to UTC. For example, to indicate 2:45 pm on August 18, 2003 for Central Standard Time, which is 6 hours behind UTC (formerly known as Greenwich Mean Time).

Table 8: DocumentGUID

<table>
<thead>
<tr>
<th>Synchronous communication with delayed response:</th>
<th>DocumentGUID</th>
<th>Sender/ReferenceId</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote</td>
<td>A0001</td>
<td>A0001</td>
</tr>
<tr>
<td>Confirmation</td>
<td>3Z439</td>
<td>A0001</td>
</tr>
<tr>
<td>GetQuote</td>
<td>023TH</td>
<td>A0001</td>
</tr>
<tr>
<td>Confirmation</td>
<td>X1138</td>
<td>A0001</td>
</tr>
<tr>
<td>GetQuote</td>
<td>32843</td>
<td>A0001</td>
</tr>
<tr>
<td>ShowQuote</td>
<td>07734</td>
<td>A0001</td>
</tr>
</tbody>
</table>
**Note:** A GUID is much longer than the examples above - the structure is shown in Appendix 10.3. Consider the above examples representative of the last five characters of an actual GUID, e.g., 2FAC1234-31F8-11B4-A222-08002B3A0001

### DataArea/Confirm/Header

**OriginalApplicationArea** - Required

- **SenderReferenceId** - Required: This element contains the DocumentGUID from the Buyer AddRequestForQuote document, which serves as a reference to this initial message, see Table 2 for an example illustrating the relationship between DocumentGUID and a ReferenceId.

- **CreationDateTime** – Required: It contains the date and time the original document instance was created and sent, formatted in the ISO 8601 extended format of YYYYY-MM-DDThh:mm:ss±hh:mm or YYYYY-MM-DDThh:mm:ssZ.

- **DocumentGUID** - Required: It contains the Globally Unique Identifier (GUID) from the original document instance, in the form of an alphanumeric string.

**OriginalDocumentReference** - Optional


- **DocumentDate** - Optional: It contains a copy of DocumentDateTime from the Header of the Buyer’s original document, if that field was present.

- **StatusCode** – Required: This element contains one of five possible values shown in Table 9.

#### Table 9: Valid codes for Confirmation status

<table>
<thead>
<tr>
<th>Code</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVALID</td>
<td>The document is syntactically or structurally incorrect. The Header must include a DocumentFailure / ErrorMessage component with a ReasonCode and Description.</td>
</tr>
</tbody>
</table>
The document is syntactically and structurally correct and the recipient has processed and validated the document content. In this case the Header won’t contain either a DocumentSuccess or DocumentFailure component.

The document is syntactically and structurally correct, but the recipient business application hasn’t completed processing and validating the document content. The Header may also include a DocumentSuccess / WarningMessage component.

<table>
<thead>
<tr>
<th>Code</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>REJECTED</td>
<td>While the document is well formed and syntactically valid, the recipient's business application found fatal errors while processing / validating the data content, e.g., an unrecognized customer identifier, a violation of export regulations, a ship date from the past, etc. The Header must also include a DocumentFailure / WarningMessage component.</td>
</tr>
<tr>
<td>ACCEPTED</td>
<td>In practice, this code is rarely used. Like VALIDATED, the recipient verifies the document they received is well-formed and valid. May be a valid response in some Asynchronous with Confirmation exchange patterns. The Header may also include a DocumentSuccess component.</td>
</tr>
</tbody>
</table>

DocumentSuccess/ - Optional: mutually exclusive with the DocumentFailure component.

WarningMessage/ - Optional

Description – Optional: Contains a text description of non-fatal problem(s) encountered while processing the Buyer’s original document, i.e., “missing currency attribute – `USD’ assumed.” This element should always be used with the ReasonCode element.

ReasonCode – Optional: Contains an alphanumeric code corresponding to any non-fatal problem(s) encountered during the Seller’s receipt and processing of the original document. This element should always be used with the Description element.

DocumentFailure/ - Optional: mutually exclusive with the DocumentSuccess component.

WarningMessage/ - Optional
Description – Optional: Contains a text description of any non-fatal problem(s) encountered during processing the Buyer’s original document, e.g., “Invalid currency attribute”. This element should always be used with the ReasonCode element.

ReasonCode – Optional: Contains an alphanumeric code corresponding to any non-fatal problem(s) encountered during the Seller’s receipt and processing of the original document. This element should always be used with Description element.

ErrorMessage - Optional

Description – Optional: Describes any fatal error(s) encountered during processing the Buyer’s original document, e.g. “Invalid DocumentGUID”. This element should always be used with the ReasonCode element.

ReasonCode – Optional: Contains an alphanumeric code corresponding to any fatal error(s) encountered during the Seller’s receipt and processing of the original document. This element should always be used with the Description element. See Table 7 for a list of recommended error codes.

Note that use of DocumentSuccess and DocumentFailure elements is mutually exclusive, i.e., only one of these may be included in the Confirmation document Header.

In most cases DocumentSuccess is returned if the original document is well formed, syntactically and semantically correct. In some cases DocumentSuccess may include a warning message when a non-fatal error is encountered during parsing, typically an invalid element or attribute content.

DocumentFailure is used when the original document is not well-formed, fails schema validation or rejected during processing for reasons that can’t be represented in the exchange document.

DocumentFailure typically includes one or more error messages identifying the problem, although some recoverable problems may generate a warning message instead. Regardless of the message delivered, DocumentFailure is used to inform the Buyer that their document was rejected by the Seller. The Buyer must correct and resubmit their document in order to proceed with collaboration. Refer to Section 5.1 and Table 6 for the list of recommended error codes.
Quote Exchange Document Patterns

This section shows how to use IPO documents to automate the process of requesting and issuing quotes. Asynchronous implementations require two or three IPO documents while synchronous implementations may require up to four.

### Table 10: Asynchronous use of RFQ and Quote Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Asynchronous with confirmation required</th>
<th>Asynchronous without confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote</td>
<td>Sent by a Buyer to request price and availability, this is the first document in the process.</td>
<td>Sent by a Buyer to request price and availability, this is the first document in the process.</td>
</tr>
<tr>
<td>AddQuote</td>
<td>Sent by the Seller in response to an AddRequestForQuote</td>
<td>Sent by the Seller in response to an AddRequestForQuote</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by the Seller in response to an AddRequestForQuote and by Buyer in response to AddQuote.</td>
<td>Used only to report an invalid input document.</td>
</tr>
</tbody>
</table>

**Figure 9: Asynchronous communication of RFQs and Quotes without confirmation**

**Figure 10: Asynchronous communication of RFQs and Quotes with confirmation**
### Table 11: Synchronous use of RFQ and Quote Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Synchronous with delayed response</th>
<th>Synchronous with immediate response</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote</td>
<td>Sent by a Buyer to request price and availability - initial document in the exchange process.</td>
<td>Sent by a Buyer to request price and availability - initial document in the exchange process.</td>
</tr>
<tr>
<td>AddQuote</td>
<td><strong>Not used</strong></td>
<td>Sent by the Seller in response to an AddRequestForQuote</td>
</tr>
<tr>
<td>GetQuote</td>
<td>Sent by the Buyer to check if the Seller’s quote is ready.</td>
<td><strong>Not used</strong></td>
</tr>
<tr>
<td>ShowQuote</td>
<td>Sent by the Seller in response to the first GetQuote received after the internal quote process is complete.</td>
<td><strong>Not used</strong></td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by the Seller in response to an AddRequestForQuote and GetQuotes until process is complete.</td>
<td><strong>Used to report an invalid document.</strong></td>
</tr>
</tbody>
</table>

**Figure 11: Synchronous communication of RFQs and Quotes with immediate response**

**Figure 12: Synchronous communication of RFQs and Quotes with delayed response**
Application Area Reference ID Information

Table 12 illustrates the use of the ReferenceId element for the documents used in the IPO Quote collaborative exchange patterns.

<table>
<thead>
<tr>
<th>DocumentId</th>
<th>Sender / ReferenceId</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asynchronous without confirmation, or Synchronous with immediate response:</strong></td>
<td></td>
</tr>
<tr>
<td>AddRequestForQuote</td>
<td>W0013</td>
</tr>
<tr>
<td>AddQuote</td>
<td>BZ129</td>
</tr>
<tr>
<td><strong>Asynchronous with confirmation, or Synchronous with delayed response:</strong></td>
<td></td>
</tr>
<tr>
<td>AddRequestForQuote</td>
<td>A0001</td>
</tr>
<tr>
<td>Confirmation</td>
<td>3Z439</td>
</tr>
<tr>
<td>GetQuote</td>
<td>023TH</td>
</tr>
<tr>
<td>Confirmation</td>
<td>X1138</td>
</tr>
<tr>
<td>GetQuote</td>
<td>32843</td>
</tr>
<tr>
<td>ShowQuote</td>
<td>07734</td>
</tr>
</tbody>
</table>

**Note:** A GUID is much longer than the examples above - the structure is shown in Appendix 10.3. Consider the above examples representative of the last five characters of an actual GUID, e.g., 2FAC1234-31F8-11B4-A222-08002B3A0001

Data Area Information

Two Base Schema – RequestForQuote and Quote – provide the content in the DataArea of the four Quote exchange documents as shown in Table 13 below:

<table>
<thead>
<tr>
<th>Quote Documents</th>
<th>Base Documents (Schemas have an .xsd extension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote</td>
<td>RequestForQuote</td>
</tr>
<tr>
<td>AddQuote</td>
<td>Quote</td>
</tr>
</tbody>
</table>
RequestForQuote - Base Document Content

A list of the XML declarations in the RequestForQuote Base Schema is shown in Table 14. If the XML schema requires a specific declaration, a capital "R" has been placed in intersecting cell. If the exchange pattern requires the use of a declaration, but this is not enforced by the XML schema, a lower-case "r" is shown.

**Implementation Note:** Required child-level declarations contained WITHIN optional Parent element hierarchies are considered optional by most XML parsers, UNLESS the optional Parent element IS populated. When an optional Parent element is populated, the schema enforces use of any REQUIRED declarations within the optional Parent's hierarchy.
### Table 14: RequestForQuote Base Document Declaration Requirements

<table>
<thead>
<tr>
<th>RequestForQuote Document Elements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Header</strong></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>R</td>
</tr>
<tr>
<td>Currency</td>
<td>R</td>
</tr>
<tr>
<td>DimensionalUOM</td>
<td>R</td>
</tr>
<tr>
<td>WeightUOM</td>
<td>R</td>
</tr>
<tr>
<td>DocumentDateTime</td>
<td></td>
</tr>
<tr>
<td>DocumentIds</td>
<td>R</td>
</tr>
<tr>
<td>CustomerRFQDocumentId</td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td>R</td>
</tr>
<tr>
<td>SupplierQuoteDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td></td>
</tr>
<tr>
<td>BackOrderedInd</td>
<td></td>
</tr>
<tr>
<td>DropShipIndicator</td>
<td></td>
</tr>
<tr>
<td>Priority</td>
<td></td>
</tr>
<tr>
<td>ReasonCode</td>
<td></td>
</tr>
<tr>
<td>NeedDeliveryDateTime</td>
<td></td>
</tr>
<tr>
<td>TransportationTermCode</td>
<td></td>
</tr>
<tr>
<td><strong>issuingAgency</strong></td>
<td>R</td>
</tr>
<tr>
<td>FreightTerms</td>
<td></td>
</tr>
<tr>
<td>FreightTerm</td>
<td>R</td>
</tr>
<tr>
<td>CommonCarrier</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td><strong>ShippingMethod</strong></td>
<td>R</td>
</tr>
<tr>
<td>RequestForQuote Document Elements</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>(“R” required - “r” required, not enforced)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>freightTermCode</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TransportationMethod</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>freightTermCode</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>ShippingCharge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>AdditionalCharges</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>AdditionalCharge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Rebate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Discount</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TotalAmount</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>PaymentTerms</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TermId</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>PaymentMethod</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>BillToParty</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>PartyId</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>LocationCode</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>AddressLine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>RequestForQuote Document Elements</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>(&quot;R&quot; required - &quot;r&quot; required, not enforced)</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
</tr>
<tr>
<td><strong>ShipToParty</strong></td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
</tr>
<tr>
<td><strong>SoldToParty</strong></td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
</tr>
<tr>
<td><strong>ShipFromParty</strong></td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
</tr>
<tr>
<td><strong>HostParty</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PartyId</strong></td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td></td>
</tr>
<tr>
<td><strong>UserArea</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lines</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LineNumber</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LineNumber</strong></td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OrderItem</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CustomerItemld</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SupplierItemld</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SupplierCode</strong></td>
<td></td>
</tr>
<tr>
<td><strong>BrandAUTO CARE ASSOCIATIONId</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ManufacturerItemld</strong></td>
<td></td>
</tr>
</tbody>
</table>
### RequestForQuote Document Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>R</td>
</tr>
<tr>
<td>uom</td>
<td>R</td>
</tr>
<tr>
<td>PriceBreak</td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R</td>
</tr>
<tr>
<td>FreightTerms</td>
<td></td>
</tr>
<tr>
<td>FreightTerm</td>
<td>R</td>
</tr>
<tr>
<td>CommonCarrier</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>ShippingMethod</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>TransportationMethod</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
</tr>
<tr>
<td>ShippingCharge</td>
<td></td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
</tr>
<tr>
<td>AdditionalCharges</td>
<td></td>
</tr>
</tbody>
</table>
### RequestForQuote /Header/

**Language:** The two-character or three-character Language Code defined in ISO Code Tables 639-1 and 639-2.

**Currency:** The three-letter currency code defined in the ISO 4217 Code Table.

**DimensionalUOM:** The two-character code defined in ANSI Code Table 355 for dimensional measures.

**WeightUOM:** The two-character weight measurement code defined in ANSI Code Table 355.
DocumentDateTime: The date and time the document was created, formatted in ISO 8601 extended format of YYYY-MM-DDThh:mm:ss, followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference - fractional seconds may be included.

DocumentIds/

CustomerRFQDocumentId/

CustomerDocumentId: AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

SupplierQuoteDocumentId/

SupplierDocumentId: AddQuote Document Identifier generated by the Supplier's (Seller's) application.

Note/: Free form text element used to annotate the document or exchange process.

author: Identifies the author of the note.

BackOrderedInd: Requested Items may not be available for shipment within the timeframe specified by the Buyer, resulting in a backorder. Buyers may use this indicator to inform the Seller whether they will accept or reject all backordered Items for the entire Order. This element will either contain a Boolean value of “1” indicating a backorder is acceptable, or “0” indicating orders for unshipped quantities or Items must be cancelled. If this element is not present, a default value of “1” is assumed.

DropShipInd: Contains a Boolean value of either "1", indicating that drop-shipment is requested or "0" indicating that the order may not be drop-shipped. If this field is not present, a default value of "0" should be assumed by the receiving application. Note: a true value of "1" is only valid when the ShipToParty/address information is different than the address in BillToParty.

Priority: Indicates the priority requested for the order.

ReasonCode: Contains either “Stocking”, “Special”, or “Emergency” indicating the nature of the order.

NeedDeliveryDateTime: Indicates when the order must be delivered to the Buyer. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

TransportationTermCode/: If the Buyer provided transportation terms in the RFQ, and the Seller agrees with those terms, the transportation terms from the RFQ should be echoed here. If not, the element contains the Sellers terms. This element contains one of the three-character
codes defined in INCOterms 2000, such as EXW (Ex works), FOB (Free on Board), CIF (Cost, Insurance and Freight), DDU (Delivered Duty Unpaid), or CPT (Carriage Paid To).

**issuingAgency**: Indicates who developed the Term Code, e.g. ICC” (International Chamber of Commerce) for INCOterms, “UCC” (Uniform Code Council) for EAN-UCC codes.

**FreightTerms/**: Container element for Freight Terms.

  **FreightTerm/**: Describes how the freight cost for a shipment of goods should be billed, e.g. Prepaid, Collect, Third Party, Prepaid and Add, Consignee Billed.

  **CommonCarrier**: Name of the shipping carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.

  **freightTermCode**: Contains one of the code types defined in the referenced element.

**ShippingMethod/**: Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.

  **freightTermCode**: Contains one of the code types defined in the referenced element.

**TransportationMethod/**: A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.

  **freightTermCode**: Contains one of the code types defined in the referenced element.

**CarrierAccount**: Account number used for the transportation carrier, e.g. FedEx, UPS, DHL, Greyhound, Burlington Northern.

**Shipping Charge**: Shipping costs for the Order.

**ExtendedPrice**: This element contains the total value of all Line Items, excluding any additional charges or fees such as tax or shipping. Typically this and other pricing fields would not be included in a RFQ, unless the Buyer knows the Seller's price (from, say, a catalog or price list) and is only checking Item availability.

**AdditionalCharges/**: Container element for Additional Charges.

  **AdditionalCharge/**: One or more unique charges associated with the purchase or delivery of the Order.
**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Rebate**: One or more rebates associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Discount**: One or more discounts associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**TotalAmount**: Contains the total value for the Order, including additional charges, e.g. customization, shipping and handling, or tax. Typically this and other pricing information is not included in the RFQ, unless the Buyer is confirming a known cost and checking Item availability.

**PaymentTerms**: Payment terms & methods.

- **TermId**: Payment terms for the order, e.g. “Net 45 days”, "2% 10 net 30”, "10th proximo”, “COD – Money Order only”.

- **PaymentMethod**: Specifies a particular payment method, e.g. Cashiers Check, Personal Check.

**BillToParty**: The content of this component describes the entity, organization, or person responsible for paying an Order invoice.

- **PartyId**: Contains information that represents a business entity that can be used to route a request to a service endpoint.

- **LocationCode**: Code used to identify the location of a party.

- **Name**: The formal or trade name of the entity.

- **AddressLine**: Supports one or more lines in an address. The first line is typically a street name and number.

- **City**: The city name.
**StateOrProvince**: ISO 3166-2 two-letter abbreviation for the state or province to which the invoice should be mailed, e.g. "IL" for Illinois, "QC" for Quebec.

**PostalCode**: ZIP or postal code for the address.

**Country**: ISO 3166-1 two-letter code for the country, e.g. "US" for United States, "CA" for Canada.

**County**: The county for the address.

**Telephone**: Business contact's telephone number, formatted as +999 (999) 9999999.

**ShipToParty**: The content of this component describes the entity, organization, or person, to which the Ordered Items will be shipped or delivered. The ShipToParty component structure is identical to Header/BillToParty, and in many cases the information provided here will also match the content in that component, although the address and contact information is frequently different for larger organizations. Note that the RFQ does not provision for more than one ShipToParty, as it's assumed every Item in an Order would be delivered to the same address.

**SoldToParty**: The content of this component describes the entity, organization, or person who will take title to the Ordered Items. The SoldToParty component structure is identical to Header/BillToParty, and in many cases the content may also be the same as that component. However, Items requested by larger organizations, such as a retail chain, could be sold to a local store, shipped to a regional warehouse to be included in the daily stock delivery, and billed to the corporate headquarters.

**ShipFromParty**: The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty.

**HostParty**: Component describes the entity to which the document should be routed.

**PartyId**: Contains information that represents a business entity that can be used to route a request to a service endpoint.

**UserArea**: Allows the user of IPO to extend the specification in order to exchange additional information which isn't defined in the standard. This UserArea should remain the last element in the Header sequence, prior to the Lines element.
RequestForQuote /Lines/Line

**LineNumber**: Contains a sequential line identifier, beginning with 1 for the first line.

**OrderItem**: A collection of information pertaining to the Item.

- **CustomerItemId**: The Item number known to the Buyer. This may be the same as the Supplier's catalog number, the Customer's SKU or some other product identifier.

- **SupplierItemId**: An Item identifier known to the Supplier. If this is different than a Buyer's identifier, it may be used as a cross-reference to the CustomerItemId.

- **SupplierCode**: Contains a Seller defined product/line code, if it is different than the ManufacturerCode tag value. This value is used in conjunction with the SupplierItemId to be the product designation as defined by the Seller.

- **BrandAUTO CARE ASSOCIATIONId**: Brand identifier found in the AUTO CARE ASSOCIATION maintained Parent/Supplier/Brand Code Registry Table.

- **ManufacturerItemId**: The Item identifier known to the Manufacturer or OEM. May be used as a cross-reference to the CustomerItemId or SupplierItemId.

- **ManufacturerCode**: Contains a Buyer/Seller negotiated product/line code. This tag value can used in conjunction with the CustomerItemId and/or the ManufacturerItemId tags, as appropriate based upon the agreement between the Buyer and Seller. In addition, this field could be used in conjunction with the SupplierItemId, if the SupplierCode tag is not present.

- **ManufacturerName**: Contains a free-form text description of the name of the manufacturer and/or the “brand” of the product.

- **Description**: The Item description.

- **PartType**: The Seller may provide additional PartType information, consisting of PCDB, Motive and Quality codes.

  - **PCDB**: ACES PCDB PartType code.

  - **Motive**: One of an enumerated list of values specifying the Motive PartType.

  - **Quality**: One of an enumerated list of values specifying the Quality of a PartType.
NPDCode: Category code information for the Item, consisting of the Auto Care Association NPD category, subcategory and segment codes.

**Category**: The Auto Care Association NPD category code for the Item.

**SubCategory**: The Auto Care Association NPD sub-category code for the Item.

**Segment**: The Auto Care Association NPD segment code for the Item.

OrderQuantity: Quantity of the Item being ordered.

**uom**: Unit of measure.

Prices: Container element for Prices.

**Pricing**: Item pricing by industry PriceType, as defined in the Auto Care Association PIES PriceType Code Table.

**PriceType**: Code value identifying the type of price conveyed- refer to the Auto Care Association PIES PriceType Code Table for complete list of enumerated types.

**Price**: The Item value for the PriceType, as defined in the Auto Care Association PIES Pricing segment.

**uom**: Unit of measure

**PriceBreak**: Incremental unit quantity required of the Item to receive a price break, as defined in the Auto Care Association PIES Pricing segment.

**uom**: Unit of measure.

FreightTerms: Container element for Freight Terms.

**FreightTerm**: Describes how the freight cost for a shipment of goods should be billed, e.g. Prepaid, Collect, Third Party, Prepaid and Add, Consignee Billed.

**CommonCarrier**: Name of the shipping carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.

**freightTermCode**: Contains one of the code types defined in the referenced element.

**ShippingMethod**: Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.
**freightTermCode**: Contains one of the code types defined in the referenced element.

**TransportationMethod**: A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.

**freightTermCode**: Contains one of the code types defined in the referenced element.

**CarrierAccount**: Account number used for the transportation carrier, e.g. FedX, UPS, DHL, Greyhound, Burlington Northern.

**Shipping Charge**: Shipping costs for the Order.

**ExtendedPrice**: This element contains the total value of all Line Items, excluding any additional charges or fees such as tax or shipping.

**AdditionalCharges**: Container element for Additional Charges.

**AdditionalCharge**: One or more unique charges associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Rebate**: One or more rebates associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Discount**: One or more discounts associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**TotalAmount**: Contains the total value for the Line Item, including additional charges, e.g. customization, shipping and handling, or tax.
**Note:** Free form text element which may be used to provide additional information about the Line Item.

- **author:** Identifies the author of the note.

**DropShipInd:** Contains a Boolean value of either "1", indicating that drop-shipment is requested or "0" indicating that the order may not be drop-shiped. If this field is not present, a default value of "0" should be assumed by the receiving application.

**BackOrderedInd:** Requested Items may not be available for shipment within the timeframe specified by the Buyer, resulting in a backorder. Buyers may use this indicator to inform the Seller whether they will accept or reject all backordered Items for the entire Order. This element will either contain a Boolean value of “1” indicating a backorder is acceptable, or “0” indicating orders for unshipped quantities or Items must be cancelled. If this element is not present, a default value of “1” is assumed. If present, this overrides the BackOrderInd value in the Header.

**NeedDeliveryDateTime:** Indicates when the order must be delivered to the Buyer. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**ShipFromParty:** The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty. Information provided here overrides any Header/ShipFromParty information for this Line Item.

**UserArea:** Allows the user of IPO to extend the specification in order to exchange additional Line Item information which isn't defined in the standard. This UserArea should remain the last element in the sequence.

**Quote – Base Document Content**

A list of the XML declarations in the Quote Base Schema is shown in Table 15. If the XML schema requires a specific declaration, a capital "R" has been placed in intersecting cell. If the exchange pattern requires the use of a declaration, but this is not enforced by the XML schema, a lower-case "r" is shown.

**Implementation Note:** Required child-level declarations contained WITHIN optional Parent element hierarchies are considered optional by most XML parsers, UNLESS the optional Parent element IS populated. When an optional Parent element is populated, the schema enforces use of any REQUIRED declarations within the optional Parent's hierarchy.
Table 15: Quote Base Document Declarations

<table>
<thead>
<tr>
<th>Quote Document Elements</th>
<th>AddQuote</th>
<th>GetQuote</th>
<th>ShowQuote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Currency</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>DimensionalUOM</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>WeightUOM</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>DocumentDateTime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DocumentIds</td>
<td>r</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerRFQDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierQuoteDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td>r</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerPurchaseOrderId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierSalesOrderId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierInvoiceId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DocumentReferenceIds</td>
<td>r</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quote Document Elements</th>
<th>AddQuote</th>
<th>GetQuote</th>
<th>ShowQuote</th>
</tr>
</thead>
<tbody>
<tr>
<td>CustomerRFQDocumentRef</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierQuoteDocumentRef</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerPODocumentRef</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierSalesOrderDocumentRef</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierInvoiceDocumentRef</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note**

<table>
<thead>
<tr>
<th>author</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ReasonCode</td>
<td></td>
</tr>
<tr>
<td>PromisedDeliveryDateTime</td>
<td></td>
</tr>
<tr>
<td>PromisedShipDate</td>
<td></td>
</tr>
<tr>
<td>ReasonCode</td>
<td></td>
</tr>
<tr>
<td>TransportationTermCode</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>issuingAgency</th>
<th>R</th>
<th>R</th>
<th>R</th>
<th>R</th>
</tr>
</thead>
</table>

**FreightTerms**

<table>
<thead>
<tr>
<th>FreightTerm</th>
<th>R</th>
<th>R</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>CommonCarrier</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ShippingMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>TransportationMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Quote Document Elements**

“R” required - “r” required, not enforced

<table>
<thead>
<tr>
<th>AddQuote</th>
<th>GetQuote</th>
<th>ShowQuote</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShippingCharge</td>
<td>r</td>
<td>R</td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td>AdditionalCharges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdditionalCharge</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Description</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>-------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Total</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Rebate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| TotalAmount | r | R |   |

<table>
<thead>
<tr>
<th>PaymentTerms</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TermId</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>PaymentMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BillToParty</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PartyId</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>LocationCode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>AddressLine</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>City</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>StateOrProvince</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>PostalCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Country</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>County</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Quote Document Elements**

<table>
<thead>
<tr>
<th>Quote Document Elements</th>
<th>AddQuote</th>
<th>GetQuote</th>
<th>ShowQuote</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShipToParty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SoldToParty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Column</td>
<td>AddQuote</td>
<td>GetQuote</td>
<td>ShowQuote</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>PCDB</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Motive</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Quality</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>

**Quote Document Elements**

“R” required - “r” required, not enforced

- Same as Header/BillToParty
- ShipFromParty
- Same as Header/BillToParty
- HostParty
  - PartyId  R  R  R
- UserArea

<table>
<thead>
<tr>
<th>Column</th>
<th>50</th>
<th>50</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LineNumber</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Weight</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Height</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>OrderItem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerItemId</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>SupplierItemId</td>
<td>r</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>SupplierCode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BrandAUTO CARE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASSOCIATIONId</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>ManufacturerItemId</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ManufacturerName</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PartTypes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PartType</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Field</td>
<td>Read/Write</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPDCode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubCategory</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ItemStatusChanges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ItemStatusChange</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OrderQuantity</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BackOrderedQuantity</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pricing</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PriceType</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PriceBreak</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FreightTerms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FreightTerm</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CommonCarrier</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShippingMethod</td>
<td>R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quote Document Elements</td>
<td>AddQuote</td>
<td>GetQuote</td>
<td>ShowQuote</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>TransportationMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShippingCharge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdditionalCharges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdditionalCharge</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Description</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Total</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Rebate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TotalAmount</td>
<td>r</td>
<td></td>
<td>R</td>
</tr>
<tr>
<td>PromisedDeliveryDateTime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PromisedShipDate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>author</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShipFromParty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UserArea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubLines</td>
<td>Identical to Line</td>
<td>NA</td>
<td>Identical to Line</td>
</tr>
</tbody>
</table>
Quote/Header/


Currency: The three-letter currency code defined in the ISO 4217 Code Table.

DimensionalUOM: The two-character code defined in ANSI Code Table 355 for dimensional measures.

WeightUOM: The two-character weight measurement code defined in ANSI Code Table 355.

DocumentDateTime: The date and time the document was created, formatted in ISO 8601 extended format of YYYY-MM-DDThh:mm:ss, followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference – fractional seconds may be included.

DocumentIds/

CustomerRFQDocumentId/

CustomerDocumentId: AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

SupplierQuoteDocumentId/

SupplierDocumentId: AddQuote Document Identifier generated by the Supplier's (Seller's) application.

CustomerPurchaseOrderId/

CustomerDocumentId: ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

SupplierSalesOrderId/

SupplierDocumentId: AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

SupplierInvoiceId/

SupplierDocumentId: Invoice Document Identifier generated by the Supplier's (Seller's) application.

DocumentReferenceIds/

CustomerRFQDocumentRef/
**CustomerDocumentId**: References the AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

**SupplierQuoteDocumentRef/**

**SupplierDocumentId**: References the AddQuote Document Identifier generated by the Supplier's (Seller's) application.

**CustomerPODocumentRef/**

**CustomerDocumentId**: References the ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

**SupplierSalesOrderDocumentRef/**

**SupplierDocumentId**: References the AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

**SupplierInvoiceDocumentRef/**

**SupplierDocumentId**: References the Invoice Document Identifier generated by the Supplier's (Seller's) application.

**Note/**: Free form text element used to annotate the document or exchange process.

**author**: Identifies the author of the note.

**ReasonCode**: Contains either “Stocking”, “Special”, or “Emergency” indicating the nature of the order.

**PromisedDeliveryDateTime**: Promised date / time the order will be delivered. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**PromisedShipDate**: Contains the date which the Seller expects to ship the Order, i.e. the departure date from the ship-from location. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**ReasonCode**: Contains either “Stocking”, “Special”, or “Emergency” indicating the nature of the order.

**TransportationTermCode/**: If the Buyer provided transportation terms in the RFQ, and the Seller agrees with those terms, the transportation terms from the RFQ should be echoed here. If not, the element contains the Sellers terms. This element contains one of the three-character codes defined in INCOterms
2000, such as EXW (Ex works), FOB (Free on Board), CIF (Cost, Insurance and Freight), DDU (Delivered Duty Unpaid), or CPT (Carriage Paid To).

issuingAgency: Indicates who developed the Term Code, e.g. ICC” (International Chamber of Commerce) for INCOterms, “UCC” (Uniform Code Council) for EAN-UCC codes.

FreightTerms/: Container element for Freight Terms.

FreightTerm/: Contains elements identifying the carrier and transportation methods.

CommonCarrier/: Name of the shipping carrier for that FreightTerm. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.

freightTermCode: Contains one of the code types defined in the referenced element.

ShippingMethod/: Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.

freightTermCode: Contains one of the code types defined in the referenced element.

TransportationMethod/: A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.

freightTermCode: Contains one of the code types defined in the referenced element.

CarrierAccount: Account number used for the transportation carrier, e.g. FedX, UPS, DHL, Greyhound, Burlington Northern.

ShippingCharge: Shipping costs for the Order.

ExtendedPrice: This element contains the total value of all Line Items, excluding any additional charges or fees such as tax or shipping.

AdditionalCharges/: Container element for Additional Charges.

AdditionalCharge/: One or more unique charges associated with the purchase or delivery of the Order.
**Description**: Describes a charge, rebate or discount, apart from the cost of an item.
Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Rebate**: One or more rebates associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item.
Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Discount**: One or more discounts associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item.
Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**TotalAmount**: Contains the total value for the Order, including additional charges, e.g. customization, shipping and handling, or tax.

**PaymentTerms**: Payment terms and methods.

**TermId**: Payment terms for the Order, e.g. “Net 45 days”, “2% 10 net 30”, “10th proximo”, “COD – Money Order only”.

**PaymentMethod**: Specifies a particular payment method, e.g. Cashiers Check, Personal Check.

**BillToParty**: The content of this component describes the entity, organization, or person responsible for paying an Order invoice.

**PartyId**: Contains information that represents a business entity that can be used to route a request to a service endpoint.

**LocationCode**: Code used to identify the location of a party.

**Name**: The formal or trade name of the entity.

**AddressLine**: Supports one or more lines in an address. The first line is typically a street name and number.

**City**: The city name.
**StateOrProvince**: ISO 3166-2 two-letter abbreviation for the state or province to which the invoice should be mailed, e.g. “IL” for Illinois, “QC” for Quebec.

**PostalCode**: ZIP or postal code for the address.

**Country**: ISO 3166-1 two-letter code for the country, e.g. “US” for United States, “CA” for Canada.

**County**: The county for the address.

**Telephone**: Business contact’s telephone number, formatted as +999 (999) 9999999.

**ShipToParty**: The content of this component describes the entity, organization, or person, to which the Ordered Items will be shipped or delivered. The ShipToParty component structure is identical to Header/BillToParty, and in many cases the information provided here will also match the content in that component, although address and contact information is frequently different for larger organizations.

Note that Quote does not provision for more than one ShipToParty, as it's assumed every Item in an Order will be delivered to the same address.

**SoldToParty**: The content of this component describes the entity, organization, or person who will take title to the Ordered Items. The SoldToParty component structure is identical to Header/BillToParty, and in many cases the content may also be the same as that component. However, Items requested by larger organizations, such as a retail chain, could be sold to a local store, shipped to a regional warehouse to be included in the daily stock delivery, and billed to the corporate headquarters. **ShipFromParty**: The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty.

**HostParty**: Component describes the entity to which the document should be routed.

  **PartyId**: Contains information that represents a business entity that can be used to route a request to a service endpoint.

**UserArea**: Allows the user of IPO to extend the specification in order to exchange additional information which isn't defined in the standard. This UserArea should remain the last element in the Header sequence, prior to the Lines element.

**Quote/Lines**

  **LineNumber**: Contains a sequential line identifier, beginning with 1 for the first line.
**Weight:** Gross weight per pack. HDX PCFS uses a 5.3 configuration.

**Length:** Length is the front-to-back Horizontal dimension (of Pack, Layer, Pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Length = front to back.

**Width:** Width is the left-to-right horizontal dimension (of pack, layer, pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Width = left to right.

**Height:** Height is the vertical dimension (of pack, layer, pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Height = base to top.

**OrderItem:** A collection of information pertaining to the Item.

- **CustomerItemid:** The Item number known to the Buyer. This may be the same as the Supplier's catalog number, the Customer's SKU or some other product identifier.
- **SupplierItemid:** An Item identifier known to the Supplier. If this is different than a Buyer's identifier, it may be used as a cross-reference to the CustomerItemid.
- **SupplierCode:** Contains a Seller defined product/line code, if it is different than the ManufacturerCode tag value. This value is used in conjunction with the SupplierItemid to be the product designation as defined by the Seller.
- **BrandAUTO CARE ASSOCIATIONId:** Brand identifier found in the Auto Care Association maintained Parent/Supplier/Brand Code Registry Table.
- **ManufacturerItemid:** The Item identifier known to the Manufacturer or OEM. May be used as a cross-reference to the CustomerItemid or SupplierItemid.
- **ManufacturerCode:** Contains a Buyer/Seller negotiated product/line code. This tag value can used in conjunction with the CustomerItemid and/or the ManufacturerItemid tags, as appropriate based upon the agreement between the Buyer and Seller. In addition, this field could be used in conjunction with the SupplierItemid, if the SupplierCode tag is not present.
- **ManufacturerName:** Contains a free-form text description of the name of the manufacturer and/or the “brand” of the product.
Description: The Item description.

PartTypes/: Container element for Part Types.

PartType/: The Seller may provide additional PartType information consisting of PCDB, Motive and Quality codes.

PCDB: ACES PCDB PartType code.

Motive: One of an enumerated list of values specifying the Motive PartType.

Quality: One of an enumerated list of values specifying the Quality of a PartType.

NPDCode/: Category code information for the Item, consisting of the Auto Care Association NPD category, subcategory and segment codes.

Category: The Auto Care Association NPD category code for the Item.

SubCategory: The Auto Care Association NPD sub-category code for the Item.

Segment: The Auto Care Association NPD segment code for the Item.

ItemStatusChanges/: Codes used by the Seller when the status of a Line Item changes.

ItemStatusChange/: A single item status change.

To: One of an enumerated list of code values indicating the reason for a change in status.

Description: A list of values for the Change/To Description element.

OrderQuantity/: Quantity of the Item being ordered. uom: Unit of measure.

BackOrderedQuantity: Contains the quantity of the Item that the Seller expects to backorder. If the value in the RFQ BackOrderedInd is "0", and this element is present in the Quote, its value must be zero.

uom: Unit of measure.

Prices/: Container element for Prices.

Pricing/: Item pricing by industry PriceType, as defined in the Auto Care Association PIES PriceType Code Table.

PriceType: Code value identifying the type of price conveyed - refer to the Auto Care Association PIES PriceType Code Table for the complete list of enumerated types.
**Price:** The Item value for the PriceType, as defined in the Auto Care Association PIES Pricing segment.

  **uom:** Unit of measure.

**PriceBreak:** Incremental unit quantity required of the Item to receive a price break, as defined in the Auto Care Association PIES Pricing segment.

  **uom:** Unit of measure.

**FreightTerms:** Container element for Freight Terms.

  **FreightTerm:** Contains elements identifying the carrier and transportation methods.

    **CommonCarrier:** Name of the shipping carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.

      **freightTermCode:** Contains one of the code types defined in the referenced element.

    **ShippingMethod:** Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.

      **freightTermCode:** Contains one of the code types defined in the referenced element.

    **TransportationMethod:** A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.

      **freightTermCode:** Contains one of the code types defined in the referenced element.

**CarrierAccount:** Account number used for the transportation carrier, e.g. FedEx, UPS, DHL, Greyhound, Burlington Northern.

**ShippingCharge:** Shipping costs for the Order.

**ExtendedPrice:** This element contains the total value of all Line Items, excluding any additional charges or fees such as tax or shipping.

**AdditionalCharges:** Container element for Additional Charges.
**AdditionalCharge**: One or more unique charges associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Rebate**: One or more rebates associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Discount**: One or more discounts associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**TotalAmount**: Contains the total value of the Line Item, including additional charges, e.g. customization, shipping and handling or tax.

**PromisedDeliveryDateTime**: Promised date / time the order will be delivered. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**PromisedShipDate**: Contains the date which the Seller expects to ship the Order, i.e. the departure date from the ship-from location. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**Note**: Free form text element which may be used to provide additional information about the Line Item.

**author**: Identifies the author of the note.

**ShipFromParty**: The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty. Information provided here overrides any Header/ShipFromParty information for this Line Item.
**UserArea:** Allows the user of IPO to extend the specification in order to exchange additional Line Item information which isn't defined in the standard. This UserArea should remain the last element in the sequence.

**Quote/Lines/Line/SubLine**

Occasionally a Seller needs to provide a multi-line response to a single-line request. Examples include:

- Seller wants to present a Buyer with a choice of alternate parts from different Manufacturers, e.g., Gabriel vs. Monroe shock absorbers.
- Seller wants to present a Buyer with a choice of alternate parts that have different performance characteristics or price points, e.g., a 95-amp vs. 120-amp alternator, or a new vs. rebuilt alternator.
- An Item requested by a Buyer was a kit, now superseded by individual parts from that kit.
- Seller can fulfill the requested quantity only by sending the Buyer a mix of both the requested item and one or more equivalent items.
- Seller can fulfill the requested quantity only by making partial shipments on different dates. This method is used when the future shipment dates are known; when the dates are unknown, the Seller should use BackOrderedQuantity – if the Buyer accepts backorders.
- Seller can ship the part from more than one location, in which case the ShipFromParty elements would vary.

Typically the content in a Seller's Quote Line structure mirrors the values contained in the corresponding Line elements of the Buyer's AddRequestForQuote. When a Seller is unable to fulfill the order as requested, as in the above scenarios, one or more SubLines are added to the affected Line in the Quote document as possible alternatives. The structure of a SubLine is identical to the Quote/Line structure and may occur one or more times for each Quote/Line. The reason(s) an order line was modified is explained through the use of To and Description element pairs contained in the ItemStatusChange component shown in Table 16.

<table>
<thead>
<tr>
<th>To</th>
<th>Description</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>Okay</td>
<td>Q01</td>
<td>Qty - Minimum Order</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>I01</td>
<td>Item - Superseding</td>
<td>Q02</td>
<td>Qty - Pack Size</td>
</tr>
<tr>
<td>I02</td>
<td>Item - Alternate</td>
<td>Q03</td>
<td>Qty – Insufficient</td>
</tr>
<tr>
<td>I03</td>
<td>Item – Kit</td>
<td>Q04</td>
<td>Qty - Not Available</td>
</tr>
<tr>
<td>I04</td>
<td>Item - Not Found</td>
<td>Q05</td>
<td>Qty - Not For Sale</td>
</tr>
<tr>
<td>I05</td>
<td>Core (Seller has added a core charge)</td>
<td>P01</td>
<td>Price - Quantity Discount</td>
</tr>
<tr>
<td>D01</td>
<td>Ship Date – Change</td>
<td>P02</td>
<td>Price – Promotion</td>
</tr>
<tr>
<td>D02</td>
<td>Ship Date – Backordered</td>
<td>P03</td>
<td>Price – Please Call</td>
</tr>
<tr>
<td>D03</td>
<td>Ship Method Changed</td>
<td>P04</td>
<td>Price – Changed</td>
</tr>
</tbody>
</table>

**Note:** These same ItemStatusChange codes are used in both Quote and Purchase Order exchange document SubLines.

A combination of ItemStatusChanges and SubLines structures is used in following examples to address Insufficient Quantity and Alternate Item scenarios:

**Example 1: Insufficient Quantity Scenario**

**Request Line Excerpt**

```
<Line>
  ...
  <OrderQuantity uom="EA">5</OrderQuantity>
  ...
</Line>
```

**Response Line Excerpt**

```
<Line>
  ...
  <OrderItem>
    ...
    <ItemStatus>
      <Changes>
        <Change>
          <To>D02</To>
          <Description>Ship Date-Backordered</Description>
        </Change>
      </Changes>
    </ItemStatus>
    ...
  </OrderItem>
  <OrderQuantity uom="EA">5</OrderQuantity>
  ...
  <SubLine>
    ...
    <OrderQuantity uom="EA">2</OrderQuantity>
    ...
```
Example 2: Alternate Item Scenario

Request Line Excerpt

```
<Line>
   ..
   <OrderItem>
      <ItemIds>
         <CustomerItemId>
            <Id>1234</Id>
         </CustomerItemId>
         <ManufacturerCode>ABCD</ManufacturerCode>
      </ItemIds>
      <OrderQuantity uom="EA">1</OrderQuantity>
   </OrderItem>
   ..
</Line>
```

Response Line Excerpt

```
<Line>
   ..
   <OrderItem>
      <ItemIds>
         <CustomerItemId>
            <Id>1234</Id>
         </CustomerItemId>
         <ManufacturerCode>ABCD</ManufacturerCode>
      </ItemIds>
      ..
      <ItemStatus>
         <Changes>
            <Change>
               <To>OK</To>
               <Description>Okay</Description>
            </Change>
         </Changes>
      </ItemStatus>
   </OrderItem>
   <OrderQuantity uom="EA">1</OrderQuantity>
   ..
   <SubLine>
      <OrderItem>
         <ItemIds>
            <CustomerItemId>
               <Id>4321</Id>
            </CustomerItemId>
            <ManufacturerCode>ABCD</ManufacturerCode>
         </ItemIds>
         <ItemStatus>
            <Changes>
               <Change>
                  <To>I02</To>
                  <Description>Alternate: 4321</Description>
               </Change>
            </Changes>
         </ItemStatus>
      </OrderItem>
      ..
   </SubLine>
```
There is an exception to the accepted practice of echoing values from the Buyer’s RequestForQuote in the corresponding Quote Line structures. Whenever the Seller proposes a change in the shipping method (status code “D03” in Table 16), the Quote response Line should contain one or more alternate methods of shipping, rather than mirror the originally requested value.

The content of populated elements in a particular SubLine will vary from the corresponding elements in the parent Line structure depending on what the Seller wants to communicate, as illustrated in Table 16. Typically the OrderQuantity, BackOrderedQuantity, PromisedShipDate (or PromisedDeliveryDate), and ItemStatusChange/To elements are used to tell the Buyer how to interpret the SubLine response. In Table 17 below, the Buyer’s RequestForQuote asked for nine units of item ABC to be shipped on August 19, 2010.

<table>
<thead>
<tr>
<th>ItemId</th>
<th>Order Quantity</th>
<th>Backordered Quantity</th>
<th>Promised Ship Date</th>
<th>ItemStatusChange/To*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line</td>
<td>ABC</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubLine</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requested item and quantity are available. No alternates are offered.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requested item is not recognized. No alternates are offered.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requested quantity is not available. Future availability is unknown. No alternates are offered.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Internet Parts Ordering – Functional Implementation Guide

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>0</th>
<th>9</th>
<th>Unused</th>
<th>Q04</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
</tr>
</tbody>
</table>

Requested quantity is not available. Future availability is known. No alternates are offered.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>0</th>
<th>9</th>
<th>9/05/2010</th>
<th>D02</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
</tr>
</tbody>
</table>

Requested quantity is partly available. Future availability is unknown. No alternates offered.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>6</th>
<th>3</th>
<th>8/19/2010</th>
<th>Q03</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
<td>Unused</td>
</tr>
</tbody>
</table>

Requested quantity is partly available. Future availability is known. No alternates are offered.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>6</th>
<th>3</th>
<th>8/19/2010</th>
<th>Q03</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>ABC</td>
<td>3</td>
<td>0</td>
<td>9/05/2010</td>
<td>D02</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ItemId</th>
<th>Order Quantity</th>
<th>BackOrdered Quantity</th>
<th>Promised Ship Date</th>
<th>ItemStatusChange/To*</th>
</tr>
</thead>
</table>

Requested item and quantity are available. One or more alternates are offered.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>9</th>
<th>0</th>
<th>8/19/2010</th>
<th>OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>DEF</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>I02</td>
</tr>
<tr>
<td>SubLine</td>
<td>GHI</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>I02</td>
</tr>
</tbody>
</table>

Requested quantity is not available. One or more alternates are available.
<table>
<thead>
<tr>
<th>SubLine</th>
<th>DEF</th>
<th>6</th>
<th>0</th>
<th>8/19/2010</th>
<th>I02</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>GHI</td>
<td>3</td>
<td>0</td>
<td>8/19/2010</td>
<td>I02</td>
</tr>
</tbody>
</table>

Requested item and quantity are available. Superceding item is offered as an alternate.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>9</th>
<th>0</th>
<th>8/19/2010</th>
<th>OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>ABC2</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>I01</td>
</tr>
</tbody>
</table>

Requested item is no longer sold. Superceding item is available.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>0</th>
<th>0</th>
<th>Unused</th>
<th>Q05</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>ABC2</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>I01</td>
</tr>
</tbody>
</table>

Requested item is a kit that is no longer sold. All items in kit are available separately.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>0</th>
<th>0</th>
<th>Unused</th>
<th>Q05</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>A</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>OK</td>
</tr>
<tr>
<td>SubLine</td>
<td>B</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>OK</td>
</tr>
<tr>
<td>SubLine</td>
<td>C</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>OK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ItemId</th>
<th>Order Quantity</th>
<th>BackOrdered Quantity</th>
<th>Promised Ship Date</th>
<th>ItemStatusChange/To*</th>
</tr>
</thead>
</table>

Requested item is a kit that is no longer sold. Some items in kit are available separately.

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>0</th>
<th>0</th>
<th>Unused</th>
<th>Q05</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubLine</td>
<td>A</td>
<td>9</td>
<td>0</td>
<td>8/19/2010</td>
<td>OK</td>
</tr>
<tr>
<td>SubLine</td>
<td>B</td>
<td>6</td>
<td>3</td>
<td>8/19/2010</td>
<td>Q03</td>
</tr>
</tbody>
</table>
Requested item is no longer sold separately. Kit containing the item is available.

<table>
<thead>
<tr>
<th>SubLine</th>
<th>C</th>
<th>9</th>
<th>0</th>
<th>8/21/2010</th>
<th>D01</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Line</th>
<th>ABC</th>
<th>0</th>
<th>0</th>
<th>Unused</th>
<th>Q05</th>
</tr>
</thead>
</table>

SubLine AB-KIT | 9 | 0 | 8/19/2010 | I03 |

* Refer to for an explanation of Item Status values.

**Quote Exchange Documents**

Up to five documents may be used in a Quote exchange – AddRequestForQuote, AddQuote, GetQuote, ShowQuote and a Confirmation document.

**AddRequestForQuote Exchange Document**

This document begins the IPO Quote exchange process in all synchronous and asynchronous patterns, as explained at the start of this section. The Buyer originates this document, and the Seller will echo much of its content in the AddQuote response. The DataArea of this document serves as a wrapper for the RequestForQuote Base Schema structure. Refer to Example 3.

**Example 3: AddRequestForQuote**

```xml
<?xml version="1.0" encoding="UTF-8"?>
<AddRequestForQuote xmlns=http://www.AutoCareAssociationsoa.net/IPOv2
xmlns:cmn="http://www.AutoCareAssociationsoa.net/IPOv2/Common"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.AutoCareAssociationsoa.net/IPOv2 AddRequestForQuote.xsd">
  <ApplicationArea>
    <cmn:DocumentGUID>183a00e0-0b9e-4f07-a515-587ae66776d0</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>183a00e0-0b9e-4f07-a515 587ae66776d0</cmn:ReferenceId>
      <cmn:Confirmation>false</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2010-03-24T14:53:06Z</cmn:CreationDateTime>
  </ApplicationArea>
  <DataArea>
    <RequestForQuote>
      <Header>
      </Header>
    </RequestForQuote>
  </DataArea>
</AddRequestForQuote>
```
<Language>eng</Language>
<Currency>USD</Currency>
<DimensionalUOM>IN</DimensionalUOM>
<WeightUOM>LB</WeightUOM>
<DocumentDateTime>2010-03-24T14:53:06Z</DocumentDateTime>
<DocumentIds>
  <cmn:CustomerRFQDocumentId>
    <cmn:CustomerDocumentId>1234</cmn:CustomerDocumentId>
  </cmn:CustomerRFQDocumentId>
</DocumentIds>
<DocumentReferenceIds/>
<BackOrderedInd>false</BackOrderedInd>
<FreightTerms>
  <cmn:FreightTerm>
    <cmn:CommonCarrier freightTermCode=""/>
    <cmn:ShippingMethod freightTermCode="FEDEX 2DAY">FedEx 2 Day Air</cmn:ShippingMethod>
    <cmn:TransportationMethod freightTermCode="A">Air</cmn:TransportationMethod>
  </cmn:FreightTerm>
</FreightTerms>
<BillToParty>
  <cmn:PartyId>444444</cmn:PartyId>
  <cmn:Name/>
  <cmn:AddressLine/>
  <cmn:City/>
  <cmn:StateOrProvince/>
  <cmn:PostalCode/>
  <cmn:Country/>
</BillToParty>
<ShipFromParty>
  <cmn:PartyId>7</cmn:PartyId>
  <cmn:Name/>
  <cmn:AddressLine/>
  <cmn:City/>
  <cmn:StateOrProvince/>
  <cmn:PostalCode/>
  <cmn:Country/>
</ShipFromParty>
<Header/>
<Lines>
  <Line>
    <LineNumber>1</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>51 21 1 852 140</cmn:CustomerItemId>
    </OrderItem>
    <OrderQuantity uom="EA">1</OrderQuantity>
  </Line>
  <Line>
    <LineNumber>2</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>03252</cmn:CustomerItemId>
    </OrderItem>
    <OrderQuantity uom="EA">1</OrderQuantity>
  </Line>
  <Line>
    <LineNumber>3</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>D 600 A</cmn:CustomerItemId>
    </OrderItem>
    <OrderQuantity uom="EA">1</OrderQuantity>
  </Line>
  <Line>
    <LineNumber>4</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>225 43003 394</cmn:CustomerItemId>
    </OrderItem>
    <OrderQuantity uom="EA">1</OrderQuantity>
  </Line>
  <Line>
    <LineNumber>5</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>0 986 237 641</cmn:CustomerItemId>
    </OrderItem>
    <OrderQuantity uom="EA">1</OrderQuantity>
  </Line>
  <Line>
    <LineNumber>6</LineNumber>
  </Line>
</Lines>
AddQuote Exchange Document

The document is sent by a Seller in response to the Buyer’s AddRequestForQuote. In practice, much of the content in this document may echo that Buyer’s document, although the context may be different. The DataArea of this document serves as a wrapper for the Quote Base Schema structure. Refer to the example in Example 4.

Example 4: AddQuote

```xml
<?xml version="1.0" encoding="UTF-8"?>
  <ov2:ApplicationArea>
    <co:DocumentGUID>EE158002-A294-1925-82B4-0004AC0B9EC5</co:DocumentGUID>
    <co:Sender>
      <OrderItem>
        <cmn:CustomerItemld>30736895</cmn:CustomerItemld>
        <OrderQuantity uom="EA">1</OrderQuantity>
      </OrderItem>
      <LineNumber>7</LineNumber>
      <OrderItem>
        <cmn:CustomerItemld>30745333</cmn:CustomerItemld>
        <OrderQuantity uom="EA">5</OrderQuantity>
      </OrderItem>
      <LineNumber>8</LineNumber>
      <OrderItem>
        <cmn:CustomerItemld>AAAAA</cmn:CustomerItemld>
        <OrderQuantity uom="EA">1</OrderQuantity>
      </OrderItem>
    </co:Sender>
  </ov2:ApplicationArea>
</ov2:AddQuote>
```
<co:Sender>
  <co:Confirmation>false</co:Confirmation>
  <co:CreationDateTime>2010-03-26T00:59:50Z</co:CreationDateTime>
</ov2:ApplicationArea>
<ov2:DataArea>
  <ov2:Quote>
    <ov2:Header>
      <ov2:Language>eng</ov2:Language>
      <ov2:Currency>USD</ov2:Currency>
      <ov2:DimensionalUOM>IN</ov2:DimensionalUOM>
      <ov2:WeightUOM>LB</ov2:WeightUOM>
      <ov2:DocumentDateTime>2010-03-26T00:59:50Z</ov2:DocumentDateTime>
    </ov2:DocumentIds>
      <co:SupplierQuoteDocumentId>
        <co:SupplierDocumentId> EE158002-A294-1925-82B4-0004AC0B9EC5</co:SupplierDocumentId>
      </co:SupplierQuoteDocumentId>
    </ov2:DocumentIds>
    <ov2:DocumentReferenceIds>
      <co:CustomerRFQDocumentReference>
        <co:CustomerDocumentId>1234</co:CustomerDocumentId>
      </co:CustomerRFQDocumentReference>
    </ov2:DocumentReferenceIds>
    <ov2:FreightTerms>
      <co:FreightTerm>
        <co:CommonCarrier freightTermCode=""/>
        <co:ShippingMethod freightTermCode="FEDEX 2DAY">FedEx 2 Day Air</co:ShippingMethod>
        <co:TransportationMethod freightTermCode="A">Air</co:TransportationMethod>
        <co:ShippingCharge>35.93</co:ShippingCharge>
      </co:FreightTerm>
    </ov2:FreightTerms>
    <ov2:BillToParty>
      <co:PartyId>444444</co:PartyId>
      <co:Name/>
      <co:AddressLine/>
      <co:City/>
    </ov2:BillToParty>
  </ov2:Quote>
</ov2:DataArea>
<co:StateOrProvince></co:StateOrProvince>
<co:PostalCode></co:PostalCode>
<co:Country></co:Country>
</ov2:BillToParty>
<ov2:ShipFromParty>
<co:PartyId>7</co:PartyId>
<co:Name></co:Name>
<co:AddressLine></co:AddressLine>
<co:City></co:City>
<co:StateOrProvince></co:StateOrProvince>
<co:PostalCode></co:PostalCode>
<co:Country></co:Country>
</ov2:ShipFromParty>
</ov2:Header>
<ov2:Lines>
<ov2:Line>
<ov2:LineNumber>1</ov2:LineNumber>
<ov2:Weight>0.01</ov2:Weight>
<ov2:OrderItem>
<co:CustomerItemId>51 21 1 852 140</co:CustomerItemId>
<co:SupplierItemId>51211852140</co:SupplierItemId>
<co:ManufacturerName>Genuine</co:ManufacturerName>
<co:Description>DOOR LOCK KNOB</co:Description>
</ov2:OrderItem>
<ov2:ItemStatusChanges>
<co:ItemStatusChange>
<co:To>OK</co:To>
<co:Description>Okay</co:Description>
</co:ItemStatusChange>
</ov2:ItemStatusChanges>
<ov2:OrderQuantity uom="EA">1</ov2:OrderQuantity>
<ov2:BackOrderedQuantity uom="EA">0</ov2:BackOrderedQuantity>
<ov2:Prices>
<co:Pricing>
<co:PriceType>USR</co:PriceType>
<co:Price uom="EA">1.40</co:Price>
</co:Pricing>
<co:Pricing>
<co:PriceType>LST</co:PriceType>
</co:Pricing>
</ov2:Prices>
<co:Price uom="EA">1.82</co:Price>
</ov2:Pricing>
</ov2:Line>
<ov2:Line>
<ov2:LineNumber>2</ov2:LineNumber>
<ov2:Weight>1.39</ov2:Weight>
<ov2:OrderItem>
<co:CustomerItemId>03252</co:CustomerItemId>
<co:SupplierItemId>03252</co:SupplierItemId>
<co:Description>DISTR. CAP</co:Description>
</ov2:OrderItem>
<ov2:ItemStatusChanges>
<co:ItemStatusChange>
<co:To>Q05</co:To>
<co:Description>Qty - Not For Sale</co:Description>
</co:ItemStatusChange>
</ov2:ItemStatusChanges>
<ov2:OrderQuantity uom="EA">1</ov2:OrderQuantity>
<ov2:BackOrderedQuantity uom="EA">0</ov2:BackOrderedQuantity>
<ov2:Prices>
<co:Pricing>
<co:PriceType>USR</co:PriceType>
<co:Price uom="EA">46.47</co:Price>
</co:Pricing>
</ov2:Prices>
<ov2:Sublines>
<ov2:SubLine>
<ov2:LineNumber>1</ov2:LineNumber>
<ov2:Weight>1.39</ov2:Weight>
<co:ItemStatusChanges>
<co:ItemStatusChange>
<co:To>I01</co:To>
<co:Description>Item - Superceding</co:Description>
</co:ItemStatusChange>
</co:ItemStatusChanges>
</ov2:SubLine>
<co:CustomerItemId>03195</co:CustomerItemId>
<co:SupplierItemId>03195</co:SupplierItemId>
<co:ManufacturerName>Bosch</co:ManufacturerName>
<co:Description>DISTR. CAP</co:Description>
</ov2:OrderItem>
<ov2:OrderQuantity uom="EA">1</ov2:OrderQuantity>
<ov2:BackOrderedQuantity uom="EA">0</ov2:BackOrderedQuantity>
<ov2:Prices>
  <co:Pricing>
    <co:PriceType>USR</co:PriceType>
    <co:Price uom="EA">46.47</co:Price>
  </co:Pricing>
</ov2:Prices>
</ov2:SubLine>
</ov2:Sublines>
</ov2:Line>
<ov2:Line>
  <ov2:LineNumber>3</ov2:LineNumber>
  <ov2:Weight>4.75</ov2:Weight>
  <ov2:OrderItem>
    <co:CustomerItemId>D 600 A</co:CustomerItemId>
    <co:SupplierItemId>D600A</co:SupplierItemId>
    <co:ManufacturerName>Ate</co:ManufacturerName>
    <co:Description>BRAKE PADS</co:Description>
  </ov2:OrderItem>
  <ov2:ItemStatusChanges>
    <co:ItemStatusChange>
      <co:To>OK</co:To>
      <co:Description>Okay</co:Description>
    </co:ItemStatusChange>
  </ov2:ItemStatusChanges>
  <ov2:OrderQuantity uom="EA">1</ov2:OrderQuantity>
  <ov2:BackOrderedQuantity uom="EA">0</ov2:BackOrderedQuantity>
  <ov2:Prices>
    <co:Pricing>
      <co:PriceType>USR</co:PriceType>
      <co:Price uom="EA">62.55</co:Price>
    </co:Pricing>
  </ov2:Prices>
</ov2:Line>
GetQuote Exchange Document

The GetQuote document is used whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. The DataArea of this document serves as a wrapper for the Quote Base Schema structure. Refer to Example 5.

Example 5: GetQuote

```xml
  <ApplicationArea>
    <cmn:DocumentGUID>token</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>token</cmn:ReferenceId>
      <cmn:Confirmation>true</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2001-12-17T09:30:47Z</cmn:CreationDateTime>
    <cmn:UserArea>
      <cmn:Any>text</cmn:Any>
    </cmn:UserArea>
  </ApplicationArea>
  <DataArea>
    <Quote>
      <Header>
        <Language>token</Language>
        <Currency>token</Currency>
        <DimensionalUOM>token</DimensionalUOM>
        <WeightUOM>token</WeightUOM>
        <DocumentDateTime>2001-12-17T09:30:47Z</DocumentDateTime>
        <DocumentIds>
          <cmn:CustomerRFQDocumentId>
            <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
          </cmn:CustomerRFQDocumentId>
          <cmn:SupplierQuoteDocumentId>
            <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
          </cmn:SupplierQuoteDocumentId>
        </DocumentIds>
      </Header>
    </Quote>
  </DataArea>
</GetQuote>
```
Internet Parts Ordering – Functional Implementation Guide

</cmn:SupplierQuoteDocumentId>
<cmn:CustomerPurchaseOrderId>
    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
</cmn:CustomerPurchaseOrderId>
<cmn:SupplierSalesOrderId>
    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
</cmn:SupplierSalesOrderId>
</DocumentIds>
<DocumentReferenceIds>
    <cmn:CustomerRFQDocumentReference>
        <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
    </cmn:CustomerRFQDocumentReference>
    <cmn:SupplierQuoteDocumentReference>
        <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
    </cmn:SupplierQuoteDocumentReference>
    <cmn:CustomerPODocumentReference>
        <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
    </cmn:CustomerPODocumentReference>
    <cmn:SupplierSalesOrderDocumentReference>
        <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
    </cmn:SupplierSalesOrderDocumentReference>
</DocumentReferenceIds>

<Note author="token">String</Note>
<PromisedShipDate>2001-12-17T09:30:47Z</PromisedShipDate>
<TransportationTermCode
    issuingAgency="token">aaa</TransportationTermCode>
    <FreightTerms>
        <cmn:FreightTerm>
            <cmn:CommonCarrier
                freightTermCode="token">String</cmn:CommonCarrier>
                <cmn:ShippingMethod
                    freightTermCode="token">String</cmn:ShippingMethod>
                    <cmn:TransportationMethod
                        freightTermCode="token">String</cmn:TransportationMethod>
                        <cmn:CarrierAccount>token</cmn:CarrierAccount>
                        <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
                    </cmn:FreightTerm>
                </FreightTerms>
                <ExtendedPrice>0.0</ExtendedPrice>
<AdditionalCharges>
  <cmn:AdditionalCharge>
    <cmn:Description>String</cmn:Description>
    <cmn:Total>0.0</cmn:Total>
  </cmn:AdditionalCharge>
</AdditionalCharges>
>TotalAmount>0.0</TotalAmount>
<PaymentTerms>
  <cmn:TermId>String</cmn:TermId>
  <cmn:PaymentMethod>String</cmn:PaymentMethod>
</PaymentTerms>
<BillToParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</BillToParty>
<ShipToParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
    <cmn:PostalCode>token</cmn:PostalCode>
    <cmn:Country>token</cmn:Country>
    <cmn:Telephone>token</cmn:Telephone>
  </ShipToParty>
<SoldToParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
    <cmn:PostalCode>token</cmn:PostalCode>
    <cmn:Country>token</cmn:Country>
    <cmn:Telephone>token</cmn:Telephone>
  </SoldToParty>
<cmn:SubCategory>token</cmn:SubCategory>
<cmn:Segment>token</cmn:Segment>
</NPDCode>
<PartTypes>
  <cmn:PartType>
    <cmn:PCDB>token</cmn:PCDB>
    <cmn:Motive>01</cmn:Motive>
    <cmn:Quality>01.</cmn:Quality>
  </cmn:PartType>
</PartTypes>
<ItemStatusChanges>
  <cmn:ItemStatusChange>
    <cmn:To>D01</cmn:To>
    <cmn:Description>Core (seller has added a core charge)</cmn:Description>
  </cmn:ItemStatusChange>
</ItemStatusChanges>
<OrderQuantity uom="token">2</OrderQuantity>
<BackOrderedQuantity uom="token">0</BackOrderedQuantity>
<Prices>
  <cmn:Pricing>
    <cmn:PriceType>AC1</cmn:PriceType>
    <cmn:Price uom="token">0.0</cmn:Price>
    <cmn:PriceBreak uom="token">2</cmn:PriceBreak>
  </cmn:Pricing>
</Prices>
<FreightTerms>
  <cmn:FreightTerm>
    <cmn:CommonCarrier freightTermCode="token">String</cmn:CommonCarrier>
    <cmn:ShippingMethod freightTermCode="token">String</cmn:ShippingMethod>
    <cmn:TransportationMethod freightTermCode="token">String</cmn:TransportationMethod>
    <cmn:CarrierAccount>token</cmn:CarrierAccount>
    <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
  </cmn:FreightTerm>
</FreightTerms>
<ExtendedPrice>0.0</ExtendedPrice>
<AdditionalCharges>
  <cmn:AdditionalCharge>
Auto Care Association Id>

<cmn:ManufacturerItemld>token</cmn:ManufacturerItemld>
<cmn:ManufacturerCode>token</cmn:ManufacturerCode>
<cmn:ManufacturerName>token</cmn:ManufacturerName>
<cmn:Description>String</cmn:Description>
</OrderItem>
<OrderQuantity uom="token">2</OrderQuantity>
<BackOrderedQuantity uom="token">0</BackOrderedQuantity>
<NPDCode>
<cmn:Category>token</cmn:Category>
<cmn:SubCategory>Token</cmn:SubCategory>
<cmn:Segment>token</cmn:Segment>
</NPDCode>
<PartTypes>
<cmn:PartType>
<cmn:PCDB>token</cmn:PCDB>
<cmn:Motive>01</cmn:Motive>
<cmn:Quality>01</cmn:Quality>
</cmn:PartType>
</PartTypes>
<Prices>
<cmn:Pricing>
<cmn:PriceType>AC1</cmn:PriceType>
<cmn:Price uom="token">0.0</cmn:Price>
<cmn:PriceBreak uom="token">2</cmn:PriceBreak>
</cmn:Pricing>
</Prices>
<FreightTerms>
<cmn:FreightTerm>
<cmn:CommonCarrier>
freightTermCode="token"</cmn:CommonCarrier>
<cmn:ShippingMethod>
freightTermCode="token"</cmn:ShippingMethod>
</cmn:FreightTerm>
</FreightTerms>
<cmn:TransportationMethod freightTermCode="token">String</cmn:TransportationMethod>

<cmn:CarrierAccount>token</cmn:CarrierAccount>

<cmn:ShippingCharge>0.0</cmn:ShippingCharge>

</cmn:FreightTerm>
</FreightTerms>
<ExtendedPrice>0.0</ExtendedPrice>
<AdditionalCharges>
  <cmn:AdditionalCharge>
    <cmn:Description>String</cmn:Description>
    <cmn:Total>0.0</cmn:Total>
  </cmn:AdditionalCharge>
</AdditionalCharges>
>TotalAmount>0.0</TotalAmount>
<PromisedShipDate>2001-12-17T09:30:47Z</PromisedShipDate>
<Note author="token">String</Note>
<ShipFromParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</ShipFromParty>
<UserArea>
  <cmn:Any>text</cmn:Any>
</UserArea>
</SubLine>
</Sublines>
</Line>
</Lines>
</Quote>
</DataArea>
</GetQuote>
ShowQuote Exchange Document

A ShowQuote document is the Seller’s response to the Buyers GetQuote document whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. The DataArea of this document serves as a wrapper for the Quote Base Schema structure. Refer to Example 6.

Example 6: ShowQuote

  <ApplicationArea>
    <cmn:DocumentGUID>token</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>token</cmn:ReferenceId>
      <cmn:Confirmation>true</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2001-12-17T09:30:47Z</cmn:CreationDateTime>
    <cmn:UserArea>
      <cmn:Any>text</cmn:Any>
    </cmn:UserArea>
  </ApplicationArea>
  <DataArea>
    <Quote>
      <Header>
        <Language>token</Language>
        <Currency>token</Currency>
        <DimensionalUOM>token</DimensionalUOM>
        <WeightUOM>token</WeightUOM>
        <DocumentDateTime>2001-12-17T09:30:47Z</DocumentDateTime>
        <DocumentIds>
          <cmn:CustomerRFQDocumentId>
            <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
            <cmn:SupplierQuoteDocumentId>
              <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
              <cmn:CustomerPurchaseOrderId>
                <cmn:CustomerOrderId>
                  <cmn:CustomerOrganizationId>token</cmn:CustomerOrganizationId>
                </cmn:CustomerOrderId>
              </cmn:CustomerPurchaseOrderId>
            </cmn:SupplierQuoteDocumentId>
          </cmn:CustomerRFQDocumentId>
        </DocumentIds>
      </Header>
    </Quote>
  </DataArea>
</ShowQuote>
<cmn:Total>0.0</cmn:Total>

</cmn:AdditionalCharge>
</AdditionalCharges>
<TotalAmount>0.0</TotalAmount>
</PaymentTerms>

<BillToParty>

<cmn:TermId>String</cmn:TermId>
<cmn:PaymentMethod>String</cmn:PaymentMethod>
</PaymentTerms>

<BillToParty>

<cmn:PartyId>token</cmn:PartyId>
<cmn:Name>String</cmn:Name>
<cmn:AddressLine>String</cmn:AddressLine>
<cmn:City>String</cmn:City>
<cmn:StateOrProvince>token</cmn:StateOrProvince>
<cmn:PostalCode>token</cmn:PostalCode>
<cmn:Country>token</cmn:Country>
<cmn:Telephone>token</cmn:Telephone>
</BillToParty>

<ShipToParty>

<cmn:PartyId>token</cmn:PartyId>
<cmn:Name>String</cmn:Name>
<cmn:AddressLine>String</cmn:AddressLine>
<cmn:City>String</cmn:City>
<cmn:StateOrProvince>token</cmn:StateOrProvince>
<cmn:PostalCode>token</cmn:PostalCode>
<cmn:Country>token</cmn:Country>
<cmn:Telephone>token</cmn:Telephone>
</ShipToParty>

<SoldToParty>

<cmn:PartyId>token</cmn:PartyId>
<cmn:Name>String</cmn:Name>
<cmn:AddressLine>String</cmn:AddressLine>
<cmn:City>String</cmn:City>
<cmn:StateOrProvince>token</cmn:StateOrProvince>
<cmn:PostalCode>token</cmn:PostalCode>
<cmn:Country>token</cmn:Country>
<cmn:Telephone>token</cmn:Telephone>
</SoldToParty>

<ShipFromParty>
<cmn:PartyId>token</cmn:PartyId>
<cmn:Name>String</cmn:Name>
<cmn:AddressLine>String</cmn:AddressLine>
<cmn:City>String</cmn:City>
<cmn:StateOrProvince>token</cmn:StateOrProvince>
<cmn:PostalCode>token</cmn:PostalCode>
<cmn:Country>token</cmn:Country>
<cmn:Telephone>token</cmn:Telephone>
</ShipFromParty>
<HostParty>
  <cmn:PartyId>token</cmn:PartyId>
</HostParty>
<UserArea>
  <cmn:Any>text</cmn:Any>
</UserArea>
</Header>
<Lines>
  <Line>
    <LineNumber>2</LineNumber>
    <Weight>0.0</Weight>
    <Length>0.0</Length>
    <Width>0.0</Width>
    <Height>0.0</Height>
    <OrderItem>
      <cmn:CustomerItemId>token</cmn:CustomerItemId>
      <cmn:SupplierItemId>token</cmn:SupplierItemId>
      <cmn:SupplierCode>token</cmn:SupplierCode>
      <cmn:Brand Auto Care AssociationId>token</cmn:Brand Auto Care AssociationId>
      <cmn:ManufacturerItemId>token</cmn:ManufacturerItemId>
      <cmn:ManufacturerCode>token</cmn:ManufacturerCode>
      <cmn:ManufacturerName>token</cmn:ManufacturerName>
      <cmn:Description>String</cmn:Description>
    </OrderItem>
  </Line>
</Lines>
<NPDCode>
  <cmn:Category>token</cmn:Category>
  <cmn:SubCategory>token</cmn:SubCategory>
  <cmn:Segment>token</cmn:Segment>
</NPDCode>
<PartTypes>
  <cmn:PartType>
    <cmn:PCDB>token</cmn:PCDB>
    <cmn:Motive>01</cmn:Motive>
    <cmn:Quality>01</cmn:Quality>
  </cmn:PartType>
</PartTypes>

<ItemStatusChanges>
  <cmn:ItemStatusChange>
    <cmn:To>D01</cmn:To>
    <cmn:Description>Core (seller has added a core charge)</cmn:Description>
  </cmn:ItemStatusChange>
</ItemStatusChanges>

<OrderQuantity uom="token">2</OrderQuantity>
<BackOrderedQuantity uom="token">0</BackOrderedQuantity>

<Prices>
  <cmn:Pricing>
    <cmn:PriceType>AC1</cmn:PriceType>
    <cmn:Price uom="token">0.0</cmn:Price>
    <cmn:PriceBreak uom="token">2</cmn:PriceBreak>
  </cmn:Pricing>
</Prices>

<FreightTerms>
  <cmn:FreightTerm>
    <cmn:CommonCarrier freightTermCode="token">String</cmn:CommonCarrier>
    <cmn:ShippingMethod freightTermCode="token">String</cmn:ShippingMethod>
    <cmn:TransportationMethod freightTermCode="token">String</cmn:TransportationMethod>
    <cmn:CarrierAccount>token</cmn:CarrierAccount>
    <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
  </cmn:FreightTerm>
</FreightTerms>

<ExtendedPrice>0.0</ExtendedPrice>
<AdditionalCharges>
  <cmn:AdditionalCharge>
    <cmn:Description>String</cmn:Description>
    <cmn:Total>0.0</cmn:Total>
  </cmn:AdditionalCharge>
</AdditionalCharges>
<cmn:AdditionalCharge>
  </AdditionalCharges>
<TotalAmount>0.0</TotalAmount>
<PromisedShipDate>2001-12-17T09:30:47Z</PromisedShipDate>
<Note author="token">String</Note>
<ShipFromParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</ShipFromParty>
<UserArea>
  <cmn:Any>text</cmn:Any>
</UserArea>
<Sublines>
  <SubLine>
    <LineNumber>2</LineNumber>
    <Weight>0.0</Weight>
    <Length>0.0</Length>
    <Width>0.0</Width>
    <Height>0.0</Height>
    <ItemStatusChanges>
      <cmn:ItemStatusChange>
        <cmn:To>D01</cmn:To>
        <cmn:Description>Core (seller has added a core charge)</cmn:Description>
      </cmn:ItemStatusChange>
    </ItemStatusChanges>
  </SubLine>
</Sublines>
<cmn:CustomerItemId>token</cmn:CustomerItemId>
<cmn:SupplierItemId>token</cmn:SupplierItemId>
<cmn:SupplierCode>token</cmn:SupplierCode>
<cmn:Brand>AUTO CARE ASSOCIATION</cmn:Brand>

<cmn:ManufacturerItemId>token</cmn:ManufacturerItemId>
<cmn:ManufacturerCode>token</cmn:ManufacturerCode>
<cmn:ManufacturerName>token</cmn:ManufacturerName>
<cmn:Description>String</cmn:Description>
<OrderItem>
<OrderQuantity uom="token">2</OrderQuantity>
<BackOrderedQuantity uom="token">0</BackOrderedQuantity>
<NPDCode>
<cmn:Category>token</cmn:Category>
<cmn:SubCategory>token</cmn:SubCategory>
<cmn:Segment>token</cmn:Segment>
</NPDCode>
<PartTypes>
<cmn:PartType>
<cmn:PCDB>token</cmn:PCDB>
<cmn:Motive>01</cmn:Motive>
<cmn:Quality>01</cmn:Quality>
</cmn:PartType>
</PartTypes>
<Prices>
<cmn:Pricing>
<cmn:PriceType>AC1</cmn:PriceType>
<cmn:Price uom="token">0.0</cmn:Price>
<cmn:PriceBreak uom="token">2</cmn:PriceBreak>
</cmn:Pricing>
</Prices>
<FreightTerms>
<cmn:FreightTerm>
<cmn:CommonCarrier freightTermCode="token">String</cmn:CommonCarrier>
<cmn:ShippingMethod freightTermCode="token">String</cmn:ShippingMethod>
</cmn:FreightTerm>
</FreightTerms>
<cmn:TransportationMethod
  freightTermCode="token">String</cmn:TransportationMethod>
  <cmn:CarrierAccount>token</cmn:CarrierAccount>
  <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
</cmn:FreightTerm>
</FreightTerms>
<ExtendedPrice>0.0</ExtendedPrice>
<AdditionalCharges>
  <cmn:AdditionalCharge>
    <cmn:Description>String</cmn:Description>
    <cmn:Total>0.0</cmn:Total>
  </cmn:AdditionalCharge>
</AdditionalCharges>
>TotalAmount>0.0</TotalAmount>
<PromisedShipDate>2001-12-17T09:30:47Z</PromisedShipDate>

<Note author="token">String</Note>
<ShipFromParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>

  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>

  <cmn:StateOrProvince>token</cmn:StateOrProvince>

  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</ShipFromParty>
<UserArea>
  <cmn:Any>text</cmn:Any>
</UserArea>
</SubLine>
</Sublines>
</Line>
</Lines>
</Quote>
</DataArea>
</ShowQuote>
Confirmation Exchange Document

A Confirmation document is used in all asynchronous Quote exchange patterns, as well as the synchronous communication with delayed response exchange - refer to Section 4.3 for guidance. Section 5 provides a detailed description of the Confirmation document and its use.

PurchaseOrders Exchange Document Patterns

This section shows how to use the IPO documents to automate the process of sending and responding to IPO PurchaseOrder exchange documents. A synchronous implementation requires up to four documents, while an asynchronous implementation requires two or three. Refer to Tables 18 & 19 and Figures 13, 14, 15 & 16, below.

**Table 18: Asynchronous use of PurchaseOrder Documents**

<table>
<thead>
<tr>
<th>Name of document (Verb – Noun)</th>
<th>Asynchronous with confirmation required</th>
<th>Asynchronous without confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProcessPurchaseOrder</td>
<td>Sent by a Buyer to place a firm order, this is the first document exchanged in the process.</td>
<td>Sent by a Buyer to place a firm order, this is the first document exchanged in the process.</td>
</tr>
<tr>
<td>AcknowledgePurchaseOrder</td>
<td>Sent by the Seller in response to the ProcessPurchaseOrder.</td>
<td>Sent by the Seller in response to the Process PurchaseOrder.</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by Seller in response to the ProcessPurchaseOrder and by the Buyer in response to AcknowledgePurchaseOrder.</td>
<td>Used only to report an invalid input document.</td>
</tr>
</tbody>
</table>

**Figure 13: Asynchronous communication of PurchaseOrders without confirmation**

![Diagram showing asynchronous communication of PurchaseOrders without confirmation](image-url)
Figure 14: Asynchronous communication of PurchaseOrders with Confirmation

Table 19: Synchronous use of PurchaseOrder Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Synchronous with delayed response</th>
<th>Synchronous with immediate response</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProcessPurchaseOrder</td>
<td>Sent by a Buyer to place a firm order, this is the first document in the exchange process.</td>
<td>Sent by a Buyer to place a firm order, this is the first document in the exchange process.</td>
</tr>
<tr>
<td>AcknowledgePurchaseOrder</td>
<td>Not used</td>
<td>Sent by the Seller in response to a ProcessPurchaseOrder.</td>
</tr>
<tr>
<td>GetPurchaseOrder</td>
<td>Sent by the Buyer (e.g., distributor) to check if the Seller has processed the order.</td>
<td>Not used</td>
</tr>
<tr>
<td>ShowPurchaseOrder</td>
<td>Sent by the Seller in response to the first GetPurchaseOrder received after internal processing is completed.</td>
<td>Not used</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by Seller in response to a ProcessPurchaseOrder and subsequent GetPurchaseOrders, before internal processing is completed.</td>
<td>Used only to report an invalid input document.</td>
</tr>
</tbody>
</table>
Application Area Information

Table 20 illustrates the use of the ReferenceId element for the documents used in the IPO Quote collaborative exchange patterns.

<table>
<thead>
<tr>
<th>Document Exchanged</th>
<th>Original Document Identifier</th>
<th>Sender/ReferenceId</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProcessPurchaseOrder is the first document exchanged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ProcessPurchaseOrder</td>
<td>P3590</td>
<td>P3590</td>
</tr>
<tr>
<td>AcknowledgePurchaseOrder</td>
<td>K9206</td>
<td>P3590</td>
</tr>
<tr>
<td>AddRequestForQuote is the first document exchanged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AddRequestForQuote</td>
<td>W0013</td>
<td>W0013</td>
</tr>
<tr>
<td>AddQuote</td>
<td>BZ129</td>
<td>W0013</td>
</tr>
</tbody>
</table>
Data Area Information

The PurchaseOrder Base Schema provides all the content for the DataArea of the six Purchase Order exchange documents as shown in Table 21:

<table>
<thead>
<tr>
<th>PurchaseOrder Exchange Documents</th>
<th>All PurchaseOrder Documents use the PurchaseOrder Base Document (PurchaseOrder.xsd XML Schema)</th>
<th>Synchronous Exchange Patterns will also use a Confirmation document during the exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProcessPurchaseOrder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AcknowledgePurchaseOrder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ChangePurchaseOrder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CancelPurchaseOrder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GetPurchaseOrder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShowPurchaseOrder</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A detailed description of all XML declarations used within the DataArea of each PurchaseOrder document can be found by referencing the PurchaseOrder Base Document located in Section 6.3. A list of the XML declarations contained in this base document is shown in the first column of Table 22, below, with the six PurchaseOrder documents shown across the header row to the right of the element listing. If the XML Base Schema used in the exchange document requires a specific declaration, a capital “R” has been placed in intersecting cell. If the exchange pattern requires the use of a declaration, but this is not enforced by the XML schema, a lower-case “r” is shown.
**Implementation Note:** Required child-level declarations contained WITHIN optional Parent element hierarchies are considered optional by most XML parsers, UNLESS the optional Parent element IS populated. When an optional Parent element is populated, the schema enforces use of any REQUIRED declarations within the optional Parent’s hierarchy.

**Table 22: PurchaseOrder Base Document Declarations**

<table>
<thead>
<tr>
<th>PurchaseOrder Document Elements</th>
<th>Process PO</th>
<th>AcknowledgePO</th>
<th>Change PO</th>
<th>Cancel PO</th>
<th>Get PO</th>
<th>ShowPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;R&quot; required - “r” required, not enforced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Header</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Currency</strong></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DimensionalUOM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WeightUOM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DocumentDateTime</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DocumentIds</strong></td>
<td>r</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CustomerRFQDocumentId</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CustomerDocumentId</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SupplierQuoteDocumentId</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SupplierDocumentId</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CustomerPurchaseOrderId</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CustomerDocumentId</strong></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SupplierSalesOrderld</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SupplierDocumentId</strong></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SupplierInvoiceId</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>DocumentReferenceIds</td>
<td>r</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerRFQDocumentRef</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td>r</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierQuoteDocumentRef</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td>r</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerPODocumentRef</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierSalesOrderDocumentRef</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PurchaseOrder Document Elements</th>
<th>Process PO</th>
<th>Acknowledge PO</th>
<th>Change PO</th>
<th>Cancel PO</th>
<th>Get PO</th>
<th>Show PO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierInvoiceDocumentRef</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DocumentStatusChanges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DocumentStatusChange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Author</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BackOrderedInd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DropShipIndicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ReasonCode</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PromisedDeliveryDateTime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PromisedShipDate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TransportationTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>issuingAgency</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>FreightTerms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FreightTerm</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>CommonCarrier</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ShippingMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>TransportationMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShippingCharge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PurchaseOrder Document Elements</td>
<td>Process PO</td>
<td>AcknowledgePO</td>
<td>Change PO</td>
<td>Cancel PO</td>
<td>Get PO</td>
<td>ShowPO</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------</td>
<td>---------------</td>
<td>-----------</td>
<td>-----------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>&quot;R&quot; required - &quot;r&quot; required, not enforced</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdditionalCharges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdditionalCharge</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Description</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Total</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Rebate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TotalAmount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PaymentTerms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TermId</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>PaymentMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>BillToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### PurchaseOrder Document Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Process PO</th>
<th>AcknowledgePO</th>
<th>Change PO</th>
<th>Cancel PO</th>
<th>Get PO</th>
<th>ShowPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShipToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SoldToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td>Type(s)</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>---------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShipFromParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HostParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PartyId</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UserArea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Lines                  |         |             |
| LineNumber             | R       | R          |
| Weight                 | R       | R          |
| Length                 | R       | R          |
| Width                  | R       | R          |
| Height                 | R       | R          |

| ItemStatusChanges      |         |             |
| ItemStatusChange       | R       | R          |
| To                     | R       | R          |
| Description            | R       | R          |

| OrderItem              |         |             |
| CustomerItemld         | R       | R          |
| SupplierItemld         |         |             |
| SupplierCode           |         |             |
| BrandAUTO CARE ASSOCIATION |         |             |
| ManufacturerItemld     |         |             |
## PurchaseOrder Document Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Process PO</th>
<th>AcknowledgePO</th>
<th>Change PO</th>
<th>Cancel PO</th>
<th>Get PO</th>
<th>ShowPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>ManufacturerCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ManufacturerName</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Description</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>PartTypes</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>PartType</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>PCDB</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Motive</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Quality</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>NPDCODE</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Category</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>SubCategory</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Segment</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>DropShipInd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PromisedDeliveryDateTime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PromisedShipDate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BackOrderedInd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OrderQuantity</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Uom</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>
### PurchaseOrder Document Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Process PO</th>
<th>AcknowledgePO</th>
<th>Change PO</th>
<th>Cancel PO</th>
<th>Get PO</th>
<th>ShowPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uom</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FreightTerms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FreightTerm</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>CommonCarrier</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ShippingMethod</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td><strong>TransportationMethod</strong></td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>freightTermCode</strong></td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td><strong>CarrierAccount</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ShippingCharge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AdditionalCharges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AdditionalCharge</strong></td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td><strong>Rebate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Discount</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TotalAmount</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Author</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BillToParty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PurchaseOrder Document Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Process PO</th>
<th>AcknowledgePO</th>
<th>Change PO</th>
<th>Cancel PO</th>
<th>Get PO</th>
<th>ShowPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>“R” required - “r” required, not enforced</td>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShipToParty</td>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShipFromParty</td>
<td>Same as Header/BillToParty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UserArea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PurchaseOrder – Base Document Content

PurchaseOrder/Header/


Currency: The three-letter currency code defined in the ISO 4217 Code Table.

DimensionalUOM: The two-character code defined in ANSI Code Table 355 for dimensional measures.

WeightUOM: The two-character weight measurement code defined in ANSI Code Table 355.

DocumentDateTime: The date and time the document was created, formatted in ISO 8601 extended format of YYYY-MM-DDThh:mm:ss, followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference-fractional seconds may be included.

DocumentIds/

CustomerRFQDocumentId/

CustomerDocumentId: AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.
SupplierQuoteDocumentId/

**SupplierDocumentId**: AddQuote Document Identifier generated by the Supplier's (Seller's) application.

CustomerPurchaseOrderId/

**CustomerDocumentId**: ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

SupplierSalesOrderId /

**SupplierDocumentId**: AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

SupplierInvoiceId/

**SupplierDocumentId**: Invoice Document Identifier generated by the Supplier's (Seller's) application.

DocumentReferenceIds/

CustomerRFQDocumentRef/

**CustomerDocumentId**: References the AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

SupplierQuoteDocumentRef/

**SupplierDocumentId**: References the AddQuote Document Identifier generated by the Supplier's (Seller's) application.

CustomerPODocumentRef/

**CustomerDocumentId**: References the ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

SupplierSalesOrderDocumentRef/

**SupplierDocumentId**: References the AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

SupplierInvoiceDocumentRef/
**SupplierDocumentId**: References the Invoice Document Identifier generated by the Supplier's (Seller's) application.

**DocumentStatusChanges/**

**DocumentStatusChange/**

**Code**: This element will contain one of three enumerated values, “Accepted”, “Modified”, or “Rejected”, indicating whether the seller accepted the purchase order as provided by the buyer, has modified one or more particulars of the buyer’s purchase order to make it acceptable, or has completely rejected the purchase order as written.

**Mode**: This element will contain one of two enumerated values, either “FullDetail” or “ExceptionDetail”, indicating whether the Acknowledge PurchaseOrder includes the complete set of header and line data or includes only fields that have been changed by the seller.

**Note/**: Free form text element used to annotate the document or exchange process.

**author**: Identifies the author of the note.

**BackOrderedInd**: Requested Items may not be available for shipment within the timeframe specified by the Buyer, resulting in a backorder. Buyers may use this indicator to inform the Seller whether they will accept or reject all backordered Items for the entire Order. This element will either contain a Boolean value of “1” indicating a backorder is acceptable, or “0” indicating orders for unshipped quantities or Items must be cancelled. If this element is not present, a default value of “1” is assumed.

**DropShipInd**: Contains a Boolean value of either "1", indicating that drop-shipment is requested or "0" indicating that the order may not be drop-shipped. If this field is not present, a default value of "0" should be assumed by the receiving application. Note: a true value of "1" is only valid when the ShipToParty address information is different than the address in BillToParty.

**ReasonCode**: Contains either “Stocking”, “Special”, or “Emergency” indicating the nature of the order.

**PromisedDeliveryDateTime**: Promised date / time the order will be delivered. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**TransportationTermCode**: If the Buyer provided transportation terms in the RFQ, and the Seller agrees with those terms, the transportation terms from the RFQ should be echoed here. If not, the element
contains the Seller's terms. This element contains one of the three-character codes defined in INCOterms
2000, such as EXW (Ex works), FOB (Free on Board), CIF (Cost, Insurance and Freight), DDU
(Delivered Duty Unpaid), or CPT (Carriage Paid To).

issuingAgency: Indicates who developed the Term Code, e.g. ICC" (International Chamber of
Commerce) for INCOterms, “UCC” (Uniform Code Council) for EAN-UCC codes.

FreightTerms/: Container element for Freight Terms.

FreightTerm/: Contains elements identifying the carrier and transportation methods.

CommonCarrier/: Name of the shipping carrier for that Freight Term. Examples of
acceptable values for the code attribute would include UPS, FED, DHL, US, etc.

freightTermCode: Contains one of the code types defined in the referenced
element.

ShippingMethod/: Description of the Shipping Method used for that Freight Term.
Examples of acceptable values for the code attribute would include NDE for Next Day
Early and 3DY for Three-Day.

freightTermCode: Contains one of the code types defined in the referenced
element.

TransportationMethod/: A description of Transportation Method for that Freight Term.
Examples of acceptable values for the code attribute would include A for Air, T for
Truck/Ground, R for Rail and V for Vessel.

freightTermCode: Contains one of the code types defined in the referenced
element.

CarrierAccount: Account number used for the transportation carrier, e.g. FedX, UPS,
DHL, Greyhound, Burlington Northern.

ShippingCharge: Shipping costs for the order.

ExtendedPrice: This element contains the total value of all Line Items, excluding any additional charges
or fees such as tax or shipping.

AdditionalCharges/: Container element for Additional Charges.
AdditionalCharge: One or more unique charges associated with the purchase or delivery of the Order.

Description: Describes a charge, rebate or discount, apart from the cost of an item.
Refer to the IPO documentation for details.

Total: Total amount of the charge, rebate or credit.

Rebate: One or more rebates associated with the purchase or delivery of the Order.

Description: Describes a charge, rebate or discount, apart from the cost of an item.
Refer to the IPO documentation for details.

Total: Total amount of the charge, rebate or credit.

Discount: One or more discounts associated with the purchase or delivery of the Order.

Description: Describes a charge, rebate or discount, apart from the cost of an item.
Refer to the IPO documentation for details.

Total: Total amount of the charge, rebate or credit.

TotalAmount: Contains the total value for the Order, including additional charges, e.g. customization, shipping and handling, or tax.

PaymentTerms: Payment terms and methods.

TermId: Payment terms for the order, e.g. “Net 45 days”, ”2% 10 net 30", "10th proximo", “COD – Money Order only”.

PaymentMethod: Specifies a particular payment method required by the Seller, e.g, Cashiers Check, Personal Check.

BillToParty: The content of this component describes the entity, organization, or person responsible for paying the invoice.

PartyId: Contains information that represents a business entity that can be used to route a request to a service endpoint.

LocationCode: Code used to identify the location of a party.

Name: The formal or trade name of the entity.

AddressLine: Indicates the multiple lines of an address. The first line is typically a street name and number.
**City:** The city name.

**StateOrProvince:** ISO 3166-2 two-letter abbreviation for the state or province to which the invoice should be mailed, e.g. “IL” for Illinois, “QC” for Quebec.

**PostalCode:** ZIP or postal code for the address.

**Country:** ISO 3166-1 two-letter code for the country, e.g. “US” for United States, “CA” for Canada.

**County:** The county for the address.

**Telephone:** Business contact’s telephone number, formatted as +999 (999) 9999999.

**ShipToParty/:** The content of this component describes the entity, organization, or person, to which the Ordered Items will be shipped or delivered. The ShipToParty component structure is identical to Header/BillToParty, and in many cases the information provided here will also match the content in that component, although address and contact information is frequently different for larger organizations.

**SoldToParty/:** The content of this component describes the entity, organization, or person who will take title to the Ordered Items. The SoldToParty component structure is identical to Header/BillToParty, and in many cases the content may also be the same as that component. However, Items requested by larger organizations, such as a retail chain, could be sold to a local store, shipped to a regional warehouse to be included in the daily stock delivery, and billed to the corporate headquarters.

**ShipFromParty/:** The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty.

**HostParty/:** Component describes the entity to which the document should be routed.

**PartyId:** Contains information that represents the Seller, as determined by the Buyer, used by the IT infrastructure to route the document to a service endpoint.

**UserArea:** Allows the user of IPO to extend the specification in order to exchange additional information which isn’t defined in the standard. This UserArea should remain the last element in the Header sequence, prior to the Lines element.

**PurchaseOrder/Lines/**

**LineNumber:** Contains a sequential line identifier, beginning with 1 for the first line.

**Weight:** Gross weight per pack. HDX PCFS uses a 5.3 configuration.
**Length:** Length is the front-to-back Horizontal dimension (of Pack, Layer, Pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Length = front to back.

**Width:** Width is the left-to-right horizontal dimension (of pack, layer, pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Width = left to right.

**Height:** Height is the vertical dimension (of pack, layer, pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Height = base to top.

**ItemStatusChanges/:** Codes used by the Seller when the status of a Line Item changes.

- **ItemStatusChange/:** A single item status change.
  - **To:** One of an enumerated list of code values indicating the reason for a change in status.
  - **Description:** The one description, selected from an enumerated list of descriptions, that correspond to the status change code in this component's ItemStatusChange/To element.

**OrderItem/:** A collection of information pertaining to the Item.

- **CustomerItemId:** The Item number known to the Buyer. This may be the same as the Supplier's catalog number, the Customer's SKU, or some other product identifier.

- **SupplierItemId:** An Item identifier known to the Supplier. If this is different than a Buyer's identifier, it may be used as a cross-reference to the CustomerItemId.

- **SupplierCode:** Contains a Seller defined product/line code, if it is different than the ManufacturerCode tag value. This value is used in conjunction with the SupplierItemId to be the product designation as defined by the Seller.

- **BrandAUTO CARE ASSOCIATIONId:** Brand identifier found in the AUTO CARE ASSOCIATION maintained Parent/Supplier/Brand Code Registry Table.

- **ManufacturerItemId:** The Item identifier known to the Manufacturer or OEM. May be used as a cross-reference to the CustomerItemId or SupplierItemId.
**ManufacturerCode**: Contains a Buyer/Seller negotiated product/line code. This tag value can be used in conjunction with the CustomerItemIds and/or the ManufacturerItemIds tags, as appropriate based upon the agreement between the Buyer and Seller. In addition, this field could be used in conjunction with the SupplierItemIds, if the SupplierCode tag is not present.

**ManufacturerName**: Contains a free-form text description of the name of the manufacturer and/or the “brand” of the product.

**Description**: The Item description.

**PartTypes**: Container element for Part Types.

- **PartType**: The Seller may provide additional PartType information, consisting of PCDB, Motive and Quality codes.
  - **PCDB**: ACES PCDB PartType code.
  - **Motive**: One of an enumerated list of values specifying the Motive PartType.
  - **Quality**: One of an enumerated list of values specifying the Quality of a PartType.

- **NPDCodes**: Category code information for the Item, consisting of the Auto Care Association NPD category, subcategory and segment codes.
  - **Category**: The Auto Care Association NPD category code for the Item.
  - **SubCategory**: The Auto Care Association NPD sub-category code for the Item.
  - **Segment**: The Auto Care Association NPD segment code for the Item.

**DropShipInd**: Contains a Boolean value of either "1", indicating that drop-shipment is requested or "0" indicating that the order may not be drop-shipped. If this field is not present, a default value of "0" should be assumed by the receiving application.

**PromisedDeliveryDateTime**: Promised date / time the order will be delivered. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**PromisedShipDate**: Contains the date which the Seller expects to ship the Order, i.e. the departure date from the ship-from location. Content is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.
BackOrderedInd: Requested Items may not be available for shipment within the timeframe specified by the Buyer, resulting in a backorder. Buyers may use this indicator to inform the Seller whether they will accept or reject all backordered Items for the entire Order. This element will either contain a Boolean value of “1” indicating a backorder is acceptable, or “0” indicating orders for unshipped quantities or Items must be cancelled. If this element is not present, a default value of “1” is assumed. If present, this overrides the BackOrderInd value in the Header.

OrderQuantity: Quantity of the Item being ordered.

uom: Unit of measure.

BackOrderedQuantity: Contains the quantity of the Item that the Seller expects to backorder. If the value in the RFQ BackOrderedInd is “0”, and this element is present in the Quote, its value must be zero.

uom: Unit of measure.

Prices: Container element for Prices.

Pricing: Item pricing by industry PriceType, as defined in the Auto Care Association PIES PriceType Code Table.

PriceType: Code value identifying the type of price conveyed - refer to the Auto Care Association PIES PriceType Code Table for the complete list of enumerated types.

Price: The Item value for the PriceType, as defined in the Auto Care Association PIES Pricing segment.

uom: Unit of measure.

PriceBreak: Incremental unit quantity required of the Item to receive a price break, as defined in the Auto Care Association PIES Pricing segment.

uom: Unit of measure.

ExtendedPrice: This element contains the total value of all Line Items, excluding any additional charges or fees such as tax or shipping.

FreightTerms: Container element for Freight Terms.

FreightTerm: Contains elements identifying the carrier and transportation methods.

CommonCarrier: Name of the shipping carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.
**freightTermCode:** Contains one of the code types defined in the referenced element.

**ShippingMethod:** Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.

**freightTermCode:** Contains one of the code types defined in the referenced element.

**TransportationMethod:** A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.

**freightTermCode:** Contains one of the code types defined in the referenced element.

**CarrierAccount:** Account number used for the transportation carrier, e.g. FedEx, UPS, DHL, Greyhound, Burlington Northern.

**ShippingCharge:** Shipping costs for the order.

**AdditionalCharges:** Container element for Additional Charges.

**AdditionalCharge:** One or more unique charges associated with the purchase or delivery of a Line Item.

**Description:** Describes a charge, apart from Item cost, e.g. tax or setup charges.

**Total:** Total amount of the charge, rebate or credit.

**Rebate:** One or more rebates associated with the purchase or delivery of the Order.

**Description:** Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total:** Total amount of the charge, rebate or credit.

**Discount:** One or more discounts associated with the purchase or delivery of the Order.

**Description:** Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total:** Total amount of the charge, rebate or credit.
TotalAmount: Contains the total value of the Line Item, including additional charges, e.g. customization, shipping and handling or tax.

Note/: Free form text element which may be used to provide additional information about the Line Item.

   author: Identifies the author of the note.

BillToParty/: The content of this component describes the entity, organization, or person responsible for paying the invoice. The elements contained in the BillToParty component are identical to Header/BillToParty. Information provided here overrides any Header/BillToParty information for this Line Item.

ShipToParty/: The content of this component describes the entity, organization, or person, to which the Ordered Items will be shipped or delivered. The ShipToParty component structure is identical to BillToParty, and in many cases the information provided here will also match the content in that component, although address and contact information is frequently different for larger organizations. Information provided here overrides any Header/ShipToParty information for this Line Item.

ShipFromParty/: The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty. Information provided here overrides any Header/ShipFromParty information for this Line Item.

UserArea: Allows the user of IPO to extend the specification in order to exchange additional Line Item information which isn't defined in the standard. This UserArea should remain the last element in the sequence.

PurchaseOrder Documents

Up to eight documents may be used in a Purchase Order exchange - ProcessPurchaseOrder, AcknowledgePurchaseOrder, GetPurchaseOrder, ShowPurchaseOrder, ChangePurchaseOrder, CancelPurchaseOrder and a Confirmation document. The DataArea of all Purchase Order documents serves as a wrapper for the PurchaseOrder Base Schema structure.

ProcessPurchaseOrder Exchange Document

This document begins the PurchaseOrder collaboration exchange in all synchronous and asynchronous patterns. A Buyer initiates the exchange using this document and the Seller responds by sending an AcknowledgePurchaseOrder response. Refer to Example 7.
Example 7: ProcessPurchaseOrder

<?xml version="1.0" encoding="UTF-8"?>
  <ApplicationArea>
    <cmn:DocumentGUID>eb04d54e-3dcd-4bd2-b041-f173617d0c11</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>eb04d54e-3dcd-4bd2-b041-f173617d0c11</cmn:ReferenceId>
      <cmn:Confirmation>false</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2010-03-26T12:59:50Z</cmn:CreationDateTime>
  </ApplicationArea>
  <DataArea>
    <PurchaseOrder>
      <Header>
        <Language>eng</Language>
        <Currency>USD</Currency>
        <DimensionalUOM>IN</DimensionalUOM>
        <WeightUOM>LB</WeightUOM>
        <DocumentDateTime>2010-03-26T12:59:50Z</DocumentDateTime>
        <DocumentIds>
          <cmn:CustomerPurchaseOrderId>
            <cmn:CustomerDocumentId>PO1234</cmn:CustomerDocumentId>
          </cmn:CustomerPurchaseOrderId>
        </DocumentIds>
        <DocumentReferenceIds />
        <Note>Print me on invoice header</Note>
        <FreightTerms>
          <cmn:FreightTerm>
            <cmn:CommonCarrier freightTermCode=""/>
            <cmn:ShippingMethod freightTermCode="FEDEX 2DAY">FedEx 2 Day Air</cmn:ShippingMethod>
          </cmn:FreightTerm>
        </FreightTerms>
        <BillToParty>
          <cmn:PartyId>444444</cmn:PartyId>
        </BillToParty>
      </Header>
    </PurchaseOrder>
  </DataArea>
</ProcessPurchaseOrder>
<BillToParty>
  <cmn:PartyId>7</cmn:PartyId>
  <cmn:Name></cmn:Name>
  <cmn:AddressLine></cmn:AddressLine>
  <cmn:City></cmn:City>
  <cmn:StateOrProvince></cmn:StateOrProvince>
  <cmn:PostalCode></cmn:PostalCode>
  <cmn:Country></cmn:Country>
</BillToParty>

<ShipFromParty>
  <cmn:PartyId>7</cmn:PartyId>
  <cmn:Name></cmn:Name>
  <cmn:AddressLine></cmn:AddressLine>
  <cmn:City></cmn:City>
  <cmn:StateOrProvince></cmn:StateOrProvince>
  <cmn:PostalCode></cmn:PostalCode>
  <cmn:Country></cmn:Country>
</ShipFromParty>

</Header>

<Lines>
  <Line>
    <LineNumber>1</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>ERR 6896</cmn:CustomerItemId>
    </OrderItem>
    <OrderQuantity uom="EA">3</OrderQuantity>
    <Note>Print me on invoice line 1</Note>
  </Line>
  <Line>
    <LineNumber>2</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>041 0804</cmn:CustomerItemId>
    </OrderItem>
    <OrderQuantity uom="EA">3</OrderQuantity>
    <Note>Print me on invoice line 2</Note>
  </Line>
  <Line>
    <LineNumber>3</LineNumber>
    <OrderItem>
      <cmn:CustomerItemId>MR991325</cmn:CustomerItemId>
    </OrderItem>
  </Line>
</Lines>
<OrderQuantity uom="EA">1</OrderQuantity>
</Line>

<Line>
  <LineNumber>4</LineNumber>
  <OrderItem>
    <cmn:CustomerItemId>7L0 407 021 B</cmn:CustomerItemId>
  </OrderItem>
  <OrderQuantity uom="EA">30</OrderQuantity>
  <Note>Print me on invoice line 4</Note>
</Line>

<Line>
  <LineNumber>5</LineNumber>
  <OrderItem>
    <cmn:CustomerItemId>BBBBB</cmn:CustomerItemId>
  </OrderItem>
  <OrderQuantity uom="EA">3</OrderQuantity>
  <Note>Print me on invoice line 5</Note>
</Line>
</Lines>
</PurchaseOrder>
</DataArea>
</ProcessPurchaseOrder>

**AcknowledgePurchaseOrder Exchange Document**

This document is sent by a Seller in response to the Buyer’s ProcessPurchaseOrder. In practice, much of the content in this document may echo that Buyer’s document, although the context may be different. Refer to Example 8.

**Example 8: AcknowledgePurchaseOrder**

```xml
<?xml version="1.0" encoding="UTF-8"?>
<ov2:AcknowledgePurchaseOrder xmlns:ov2="http://www.Auto Care Associationsoa.net/IPOv2"
 xmlns:co="http://www.Auto Care Associationsoa.net/IPOv2/Common"
  <ov2:ApplicationArea>
    <co:DocumentGUID>C046768C-43DC-F7CE-8329-0E7D31CE362F</co:DocumentGUID>
    <co:Sender>
```
<co:ReferenceId>eb04d54e-3dcd-4bd2-b041-f173617d0c11</co:ReferenceId>
<co:Confirmation>false</co:Confirmation>
</co:Sender>
<co:CreationDateTime>2010-03-27T00:11:50Z</co:CreationDateTime>
</ov2:ApplicationArea>
<ov2:DataArea>
<ov2:PurchaseOrder>
<ov2:Header>
<ov2:Language>eng</ov2:Language>
<ov2:Currency>USD</ov2:Currency>
<ov2:DimensionalUOM>IN</ov2:DimensionalUOM>
<ov2:WeightUOM>LB</ov2:WeightUOM>
<ov2:DocumentDateTime>2010-03-26T12:59:50Z</ov2:DocumentDateTime>
<ov2:DocumentIds>
<co:SupplierSalesOrderId>
<co:SupplierDocumentId>444444-20100326-802370</co:SupplierDocumentId>
</co:SupplierSalesOrderId>
</ov2:DocumentIds>
<ov2:DocumentReferenceIds>
<co:CustomerPODocumentReference>
<co:CustomerDocumentId>PO1234</co:CustomerDocumentId>
</co:CustomerPODocumentReference>
</ov2:DocumentReferenceIds>
<ov2:Note>Print me on invoice header</ov2:Note>
<ov2:BackOrderedInd>false</ov2:BackOrderedInd>
<ov2:FreightTerms>
<co:FreightTerm>
<co:CommonCarrier freightTermCode=""/>
<co:ShippingMethod freightTermCode="FEDEX 2DAY">FedEx 2 Day Air</co:ShippingMethod>
<co:TransportationMethod freightTermCode="A">Air</co:TransportationMethod>
<co:ShippingCharge>16.40</co:ShippingCharge>
</co:FreightTerm>
</ov2:FreightTerms>
<ov2:ExtendedPrice>123.45</ov2:ExtendedPrice>
<ov2:TotalAmount>139.85</ov2:TotalAmount>
<ov2:BillToParty>
<co:PartyId>444444</co:PartyId>
<co:Name></co:Name>
<co:AddressLine></co:AddressLine>
<co:City></co:City>
<co:StateOrProvince></co:StateOrProvince>
<co:PostalCode></co:PostalCode>
<co:Country></co:Country>
</ov2:BillToParty>
<ov2:ShipFromParty>
<co:PartyId>7</co:PartyId>
<co:Name></co:Name>
<co:AddressLine></co:AddressLine>
<co:City></co:City>
<co:StateOrProvince></co:StateOrProvince>
<co:PostalCode></co:PostalCode>
<co:Country></co:Country>
</ov2:ShipFromParty>
</ov2:Header>
<ov2:Lines>
<ov2:Line>
<ov2:LineNumber>1</ov2:LineNumber>
<ov2:Weight>0.89</ov2:Weight>
<ov2:ItemStatusChanges>
<co:ItemStatusChange>
<co:To>OK</co:To>
<co:Description>Okay</co:Description>
</co:ItemStatusChange>
</ov2:ItemStatusChanges>
<ov2:OrderItem>
<co:CustomerItemId>ERR 6896</co:CustomerItemId>
<co:SupplierItemId>ERR6896</co:SupplierItemId>
<co:ManufacturerName>Ro-Fan</co:ManufacturerName>
<co:Description>SERPENTINE BELT</co:Description>
</ov2:OrderItem>
<ov2:OrderQuantity uom="EA">3</ov2:OrderQuantity>
<ov2:Prices>
<co:Pricing>
<co:PriceType>USR</co:PriceType>
<co:Price uom="EA">34.75</co:Price>
</co:Pricing>
<co:Pricing>
  <co:PriceType>LST</co:PriceType>
  <co:Price uom="EA">45.43</co:Price>
</co:Pricing>
</ov2:Line>
<ov2:Line>
  <ov2:LineNumber>2</ov2:LineNumber>
  <ov2:Weight>0.34</ov2:Weight>
  <ov2:ItemStatusChanges>
    <co:ItemStatusChange>
      <co:To>OK</co:To>
      <co:Description>Okay</co:Description>
    </co:ItemStatusChange>
    </ov2:ItemStatusChanges>
  <ov2:OrderItem>
    <co:CustomerItemId>041 0804</co:CustomerItemId>
    <co:SupplierItemId>11421745390</co:SupplierItemId>
    <co:ManufacturerName>Mahle</co:ManufacturerName>
    <co:Description>OIL FILTER</co:Description>
  </ov2:OrderItem>
  <ov2:OrderQuantity uom="EA">3</ov2:OrderQuantity>
  <ov2:Prices>
    <co:Pricing>
      <co:PriceType>USR</co:PriceType>
      <co:Price uom="EA">6.4</co:Price>
    </co:Pricing>
    <co:Pricing>
      <co:PriceType>LST</co:PriceType>
      <co:Price uom="EA">15.17</co:Price>
    </co:Pricing>
    <ov2:ExtendedPrice>19.20</ov2:ExtendedPrice>
    <ov2:Note>Print me on invoice line 2</ov2:Note>
  </ov2:Prices>
</ov2:Line>
<ov2:Line>
  <ov2:LineNumber>3</ov2:LineNumber>
  <ov2:Weight>3.36</ov2:Weight>
  <ov2:ItemStatusChanges>
    <co:ItemStatusChange>
      <co:To>Q04</co:To>
      <co:Description>Qty - Not Available</co:Description>
    </co:ItemStatusChange>
  </ov2:ItemStatusChanges>
  <ov2:OrderItem>
    <co:CustomerItemId>MR991325</co:CustomerItemId>
    <co:SupplierItemId>MR991325</co:SupplierItemId>
    <co:ManufacturerName>Hansun</co:ManufacturerName>
    <co:Description>WINDOW LIFTER</co:Description>
  </ov2:OrderItem>
  <ov2:OrderQuantity uom="EA">1</ov2:OrderQuantity>
  <ov2:Note>Print me on invoice line 3</ov2:Note>
</ov2:Line>

<ov2:Line>
  <ov2:LineNumber>4</ov2:LineNumber>
  <ov2:Weight>2.72</ov2:Weight>
  <ov2:ItemStatusChanges>
    <co:ItemStatusChange>
      <co:To>Q04</co:To>
      <co:Description>Qty - Not Available</co:Description>
    </co:ItemStatusChange>
  </ov2:ItemStatusChanges>
  <ov2:OrderItem>
    <co:CustomerItemId>7L0 407 021 B</co:CustomerItemId>
    <co:SupplierItemId>7L0407021B</co:SupplierItemId>
    <co:ManufacturerName>TRW</co:ManufacturerName>
    <co:Description>CONTROL ARM</co:Description>
  </ov2:OrderItem>
  <ov2:OrderQuantity uom="EA">30</ov2:OrderQuantity>
  <ov2:Note>Print me on invoice line 4</ov2:Note>
</ov2:Line>

<ov2:Line>
  <ov2:LineNumber>5</ov2:LineNumber>
  <ov2:Weight>0.00</ov2:Weight>
  <ov2:ItemStatusChanges>
</ov2:Line>
ChangePurchaseOrder Exchange Document

Change PurchaseOrder is a Buyer request to affect changes in the content of an existing PurchaseOrder, previously generated using a ProcessPurchaseOrder document. This document must identify the original PurchaseOrder and all line items the Buyer wishes to change. The Seller’s application should assume that information received in a ChangePurchaseOrder document replaces identically located information in the original Process PurchaseOrder request.

If LineNumber 2 in a ChangePurchaseOrder document contains a new value in ItemId element and the OrderQuantity element for that Line is empty, the Seller’s application should assume that the order quantity specified in LineNumber 2 in the referenced Process PurchaseOrder document is still valid for the new ItemId.

If this same Change document contains no information referring to LineNumber 1, the Seller’s application should assume that LineNumber 1 in the referenced Process PurchaseOrder document remains valid. Following similar logic, the Buyer would cancel a previously ordered line by specifying an OrderQuantity of zero in the Change document.
Any ChangePurchaseOrder documents sent by a Buyer that do not reference an active PurchaseOrder should be rejected and reported by the Seller using the appropriate error codes in a Confirmation document. Change documents referring to a LineNumber that doesn’t exist in the original Process PurchaseOrder document should be rejected in a similar fashion. Refer to Example 9.

Example 9: ChangePurchaseOrder

```xml
  <ApplicationArea>
    <cmn:DocumentGUID>token</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>token</cmn:ReferenceId>
      <cmn:Confirmation>true</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2001-12-17T09:30:47Z</cmn:CreationDateTime>
    <cmn:UserArea>
      <cmn:Any>text</cmn:Any>
    </cmn:UserArea>
  </ApplicationArea>

  <DataArea>
    <PurchaseOrder>
      <Header>
        <Language>token</Language>
        <Currency>token</Currency>
        <DimensionalUOM>token</DimensionalUOM>
        <WeightUOM>token</WeightUOM>
        <DocumentDateTime>2001-12-17T09:30:47Z</DocumentDateTime>
        <DocumentIds>
          <cmn:CustomerRFQDocumentId>
            <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
          </cmn:CustomerRFQDocumentId>
          <cmn:SupplierQuoteDocumentId>
            <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
          </cmn:SupplierQuoteDocumentId>
          <cmn:CustomerPurchaseOrderId>
            <cmn:CustomerPurchaseOrderDocumentId>token</cmn:CustomerPurchaseOrderDocumentId>
          </cmn:CustomerPurchaseOrderId>
        </DocumentIds>
      </Header>
    </PurchaseOrder>
  </DataArea>
</ChangePurchaseOrder>
```
<cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
</cmn:CustomerPurchaseOrderId>
<cmn:SupplierSalesOrderId>
    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
</cmn:SupplierSalesOrderId>
</DocumentIds>
<DocumentReferenceIds>
    <cmn:CustomerRFQDocumentReference>
        <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
    </cmn:CustomerRFQDocumentReference>
    <cmn:SupplierQuoteDocumentReference>
        <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
    </cmn:SupplierQuoteDocumentReference>
    <cmn:CustomerPODocumentReference>
        <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
    </cmn:CustomerPODocumentReference>
    <cmn:SupplierSalesOrderDocumentReference>
        <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
    </cmn:SupplierSalesOrderDocumentReference>
</DocumentReferenceIds>
<Note author="token">String</Note>
<BackOrderedInd>true</BackOrderedInd>
<DropShipIndicator>true</DropShipIndicator>
<TransportationTermCode issuingAgency="token">aaa</TransportationTermCode>
<FreightTerms>
    <cmn:FreightTerm
        <cmn:CommonCarrier freightTermCode="token">String</cmn:CommonCarrier>
        <cmn:ShippingMethod freightTermCode="token">String</cmn:ShippingMethod>
        <cmn:TransportationMethod freightTermCode="token">String</cmn:TransportationMethod>
        <cmn:CarrierAccount>token</cmn:CarrierAccount>
        <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
    </cmn:FreightTerm>
<AdditionalCharges>

  <cmn:AdditionalCharge>
    <cmn:Description>String</cmn:Description>
    <cmn:Total>0.0</cmn:Total>
  </cmn:AdditionalCharge>

</AdditionalCharges>

<PaymentTerms>

  <cmn:TermId>String</cmn:TermId>
  <cmn:PaymentMethod>String</cmn:PaymentMethod>

</PaymentTerms>

<BillToParty>

  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>

</BillToParty>

<ShipToParty>

  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>

</ShipToParty>

<SoldToParty>

  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>

</SoldToParty>
<cmn:PostalCode>token</cmn:PostalCode>
<cmn:Country>token</cmn:Country>
<cmn:Telephone>token</cmn:Telephone>
</SoldToParty>

<ShipFromParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</ShipFromParty>

<HostParty>
  <cmn:PartyId>token</cmn:PartyId>
</HostParty>

<UserArea>
  <cmn:Any>text</cmn:Any>
</UserArea>

</Header>

<Lines>
  <Line>
    <LineNumber>2</LineNumber>
    <Weight>0.0</Weight>
    <Length>0.0</Length>
    <Width>0.0</Width>
    <Height>0.0</Height>
    <ItemStatusChanges>
      <cmn:ItemStatusChange>
        <cmn:To>D01</cmn:To>
        <cmn:Description>Core (seller has added a core charge)</cmn:Description>
      </cmn:ItemStatusChange>
      <cmn:ItemStatusChange>
        <cmn:To>D01</cmn:To>
      </cmn:ItemStatusChange>
    </ItemStatusChanges>
    <OrderItem>
      <cmn:CustomerItemId>token</cmn:CustomerItemId>
      <cmn:SupplierItemId>token</cmn:SupplierItemId>
      <cmn:SupplierCode>token</cmn:SupplierCode>
    </OrderItem>
  </Line>
</Lines>
CancelPurchaseOrder Exchange Document

The CancelPurchaseOrder document is sent by a Buyer to inform the Seller that an existing PurchaseOrder is no longer needed. The Cancel document must identify the original PurchaseOrder using the PurchaseOrder number. To cancel the entire order, only the Header information is included in the Cancel document. To cancel one or more lines, each Line to be cancelled also must be included, identified by a LineNumber. The Data Area in this document reflects the PurchaseOrder base document structure.
CancelPurchaseOrder documents that do not reference an existing PurchaseOrder should be rejected by a Seller, and reported to the Buyer using the appropriate error codes in a Confirmation document. Cancel documents referring to a LineNumber that doesn’t exist in the original ProcessPurchaseOrder document should be rejected in a similar fashion. The Data Area in this document reflects the PurchaseOrder base document structure. Refer to Example 10.

**Example 10: CancelPurchaseOrder**

```xml
  <ApplicationArea>
    <cmn:DocumentGUID>token</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>token</cmn:ReferenceId>
      <cmn:Confirmation>true</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2001-12-17T09:30:47Z</cmn:CreationDateTime>
    <cmn:UserArea>
      <cmn:Any>text</cmn:Any>
    </cmn:UserArea>
  </ApplicationArea>
  <DataArea>
    <PurchaseOrder>
      <Header>
        <Language>token</Language>
        <Currency>token</Currency>
        <DimensionalUOM>token</DimensionalUOM>
        <WeightUOM>token</WeightUOM>
        <DocumentDateTime>2001-12-17T09:30:47Z</DocumentDateTime>
        <DocumentIds>
          <cmn:CustomerRFQDocumentId>
            <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
          </cmn:CustomerRFQDocumentId>
          <cmn:SupplierQuoteDocumentId>
            <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
          </cmn:SupplierQuoteDocumentId>
          <cmn:CustomerPurchaseOrderId>
            <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
          </cmn:CustomerPurchaseOrderId>
          <cmn:SupplierSalesOrderId>
            <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
          </cmn:SupplierSalesOrderId>
        </DocumentIds>
      </Header>
    </PurchaseOrder>
  </DataArea>
</CancelPurchaseOrder>
```
<cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
</cmn:SupplierSalesOrderId>
</DocumentIds>
<DocumentReferenceIds>
  <cmn:CustomerRFQDocumentReference>
    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
  </cmn:CustomerRFQDocumentReference>
  <cmn:SupplierQuoteDocumentReference>
    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
  </cmn:SupplierQuoteDocumentReference>
  <cmn:CustomerPODocumentReference>
    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
  </cmn:CustomerPODocumentReference>
  <cmn:SupplierSalesOrderDocumentReference>
    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
  </cmn:SupplierSalesOrderDocumentReference>
</DocumentReferenceIds>
<Note author="token">String</Note>
  <BackOrderedInd>true</BackOrderedInd>
  <DropShipIndicator>true</DropShipIndicator>
  <TransportationTermCode
    issuingAgency="token">aaa</TransportationTermCode>
    <FreightTerms
      freightTermCode="token">String</cmn:CommonCarrier>
      freightTermCode="token">String</cmn:ShippingMethod>
      freightTermCode="token">String</cmn:TransportationMethod>
      <cmn:CarrierAccount>token</cmn:CarrierAccount>
      <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
    </cmn:FreightTerm>
  </FreightTerms>
</cmn:TransportationTermCode>
  <ExtendedPrice>0.0</ExtendedPrice>
  <AdditionalCharges>
    <cmn:AdditionalCharge>
      <cmn:Description>String</cmn:Description>
      <cmn:Total>0.0</cmn:Total>
</cmn:AdditionalCharge>
</AdditionalCharges>
>TotalAmount>0.0</TotalAmount>
</PaymentTerms>
</BillToParty>
</ShipToParty>
</SoldToParty>
</ShipFromParty>
<cmn:Name>String</cmn:Name>
<cmn:AddressLine>String</cmn:AddressLine>
<cmn:City>String</cmn:City>
<cmn:StateOrProvince>token</cmn:StateOrProvince>
<cmn:PostalCode>token</cmn:PostalCode>
<cmn:Country>token</cmn:Country>
<cmn:Telephone>token</cmn:Telephone>

</ShipFromParty>
<HostParty>

<cmn:PartyId>token</cmn:PartyId>

</HostParty>
<UserArea>
<cmn:Any>text</cmn:Any>
</UserArea>

</Header>
<Lines>
<Line>
<LineNumber>2</LineNumber>
<Weight>0.0</Weight>
<Length>0.0</Length>
<Width>0.0</Width>

<Height>0.0</Height>
<ItemStatusChanges>

<cmn:ItemStatusChange>
<cmn:To>D01</cmn:To>
<cmn:Description>Core (seller has added a core charge)</cmn:Description>
</cmn:ItemStatusChange>
</ItemStatusChanges>
<ItemStatusChanges>
<OrderItem>
<cmn:CustomerItemId>token</cmn:CustomerItemId>
<cmn:SupplierItemId>token</cmn:SupplierItemId>
<cmn:SupplierCode>token</cmn:SupplierCode>
<cmn:BrandAUTO CARE ASSOCIATIONId>token</cmn:BrandAUTO CARE ASSOCIATIONId>
<cmn:ManufacturerItemId>token</cmn:ManufacturerItemId>
<cmn:ManufacturerCode>token</cmn:ManufacturerCode>
<cmn:ManufacturerName>token</cmn:ManufacturerName>
<cmn:Description>String</cmn:Description>
</OrderItem>
</DropShipIndicator>
<NPDCODE>
  <cmn:Category>token</cmn:Category>
  <cmn:SubCategory>token</cmn:SubCategory>
  <cmn:Segment>token</cmn:Segment>
</NPDCODE>

<BackOrderedInd>true</BackOrderedInd>

<OrderQuantity uom="token">2</OrderQuantity>

<PartTypes>
  <cmn:PartType>
    <cmn:PCDB>token</cmn:PCDB>
    <cmn:Motive>01</cmn:Motive>
    <cmn:Quality>01.</cmn:Quality>
  </cmn:PartType>
</PartTypes>

<BackOrderedQuantity uom="token">0</BackOrderedQuantity>

<Prices>
  <cmn:Pricing>
    <cmn:PriceType>AC1</cmn:PriceType>
    <cmn:Price uom="token">0.0</cmn:Price>
    <cmn:PriceBreak uom="token">2</cmn:PriceBreak>
  </cmn:Pricing>
</Prices>

<ExtendedPrice>0.0</ExtendedPrice>

<FreightTerms>
  <cmn:FreightTerm>
    <cmn:CommonCarrier>
      <cmn:FreightTermCode>token</cmn:CommonCarrier>
    </cmn:ShippingMethod>
    <cmn:ShippingMethod>
      <cmn:FreightTermCode>token</cmn:ShippingMethod>
    </cmn:TransportationMethod>
    <cmn:TransportationMethod>
      <cmn:FreightTermCode>token</cmn:TransportationMethod>
    </cmn:FreightAccount>0.0</cmn:CarrierAccount>
    <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
  </cmn:FreightTerm>
</FreightTerms>

<AdditionalCharges>
  <cmn:AdditionalCharge>
    <cmn:CarrierAccount>token</cmn:CarrierAccount>
    <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
  </cmn:AdditionalCharge>
</AdditionalCharges>
GetPurchaseOrder Exchange Document

The GetPurchaseOrder document is used whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. Refer to Example 11.

Example 11: GetPurchaseOrder
    <ApplicationArea>
        <cmn:DocumentGUID>token</cmn:DocumentGUID>
        <cmn:Sender>
            <cmn:ReferenceId>token</cmn:ReferenceId>
            <cmn:Confirmation>true</cmn:Confirmation>
        </cmn:Sender>
        <cmn:CreationDateTime>2001-12-17T09:30:47Z</cmn:CreationDateTime>
        <cmn:UserArea>
            <cmn:Any>text</cmn:Any>
        </cmn:UserArea>
    </ApplicationArea>
    <DataArea>
        <PurchaseOrder>
            <Header>
                <Language>token</Language>
                <Currency>token</Currency>
                <DimensionalUOM>token</DimensionalUOM>
                <WeightUOM>token</WeightUOM>
                <DocumentDateTime>2001-12-17T09:30:47Z</DocumentDateTime>
                <DocumentIds>
                    <cmn:CustomerRFQDocumentId>
                        <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
                    </cmn:CustomerRFQDocumentId>
                    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
                </DocumentIds>
                <DocumentReferenceIds>
                    <cmn:CustomerRFQDocumentReference>
                        <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
                    </cmn:CustomerRFQDocumentReference>
                </DocumentReferenceIds>
            </Header>
        </PurchaseOrder>
    </DataArea>
</GetPurchaseOrder>
<PaymentTerms>
</PaymentTerms>

<BillToParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</BillToParty>

<ShipToParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</ShipToParty>

<SoldToParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</SoldToParty>

<ShipFromParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
</ShipFromParty>
<cmn:Telephone>token</cmn:Telephone>
</ShipFromParty>
<HostParty>
  <cmn:PartyId>token</cmn:PartyId>
</HostParty>
<UserArea>
  <cmn:Any>text</cmn:Any>
</UserArea>
</Header>
<Lines>
  <Line>
    <LineNumber>2</LineNumber>
    <Weight>0.0</Weight>
    <Length>0.0</Length>
    <Width>0.0</Width>
    <Height>0.0</Height>
    <ItemStatusChanges>
      <cmn:ItemStatusChange>
        <cmn:To>D01</cmn:To>
        <cmn:Description>Core (seller has added a core charge)</cmn:Description>
      </cmn:ItemStatusChange>
    </ItemStatusChanges>
    <OrderItem>
      <cmn:CustomerItemId>token</cmn:CustomerItemId>
      <cmn:SupplierItemId>token</cmn:SupplierItemId>
      <cmn:SupplierCode>token</cmn:SupplierCode>
      <cmn:BrandAUTO CARE ASSOCIATIONId>token</cmn:BrandAUTO CARE ASSOCIATIONId>
      <cmn:ManufacturerItemId>token</cmn:ManufacturerItemId>
      <cmn:ManufacturerCode>token</cmn:ManufacturerCode>
      <cmn:ManufacturerName>token</cmn:ManufacturerName>
      <cmn:Description>String</cmn:Description>
    </OrderItem>
    <DropShipIndicator>true</DropShipIndicator>
    <NPDCode>
      <cmn:Category>token</cmn:Category>
      <cmn:SubCategory>token</cmn:SubCategory>
      <cmn:Segment>token</cmn:Segment>
    </NPDCode>
  </Line>
</Lines>
</NPDCode>
<BackOrderedInd>true</BackOrderedInd>
<OrderQuantity uom="token">2</OrderQuantity>
<PartTypes>
  <cmn:PartType>
    <cmn:PCDB>token</cmn:PCDB>
    <cmn:Motive>01</cmn:Motive>
    <cmn:Quality>01</cmn:Quality>
  </cmn:PartType>
</PartTypes>
<BackOrderedQuantity uom="token">0</BackOrderedQuantity>
<Prices>
  <cmn:Pricing>
    <cmn:PriceType>AC1</cmn:PriceType>
    <cmn:Price uom="token">0.0</cmn:Price>
    <cmn:PriceBreak uom="token">2</cmn:PriceBreak>
  </cmn:Pricing>
</Prices>
<ExtendedPrice>0.0</ExtendedPrice>
<FreightTerms>
  <cmn:FreightTerm>
    <cmn:CommonCarrier freightTermCode="token">String</cmn:CommonCarrier>
    <cmn:ShippingMethod freightTermCode="token">String</cmn:ShippingMethod>
    <cmn:TransportationMethod freightTermCode="token">String</cmn:TransportationMethod>
    <cmn:CarrierAccount>token</cmn:CarrierAccount>
    <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
  </cmn:FreightTerm>
</FreightTerms>
<AdditionalCharges>
  <cmn:AdditionalCharge>
    <cmn:Description>String</cmn:Description>
    <cmn:Total>0.0</cmn:Total>
  </cmn:AdditionalCharge>
</AdditionalCharges>
<TotalAmount>0.0</TotalAmount>
<PromisedShipDate>2001-12-17T09:30:47Z</PromisedShipDate>
<Note author="token">String</Note>
<ShipFromParty>
  <cmn:PartyId>token</cmn:PartyId>
  <cmn:Name>String</cmn:Name>
  <cmn:AddressLine>String</cmn:AddressLine>
  <cmn:City>String</cmn:City>
  <cmn:StateOrProvince>token</cmn:StateOrProvince>
  <cmn:PostalCode>token</cmn:PostalCode>
  <cmn:Country>token</cmn:Country>
  <cmn:Telephone>token</cmn:Telephone>
</ShipFromParty>
<UserArea>
  <cmn:Any>text</cmn:Any>
</UserArea>
</Line>
</Lines>
</PurchaseOrder>
</DataArea>
</GetPurchaseOrder>

ShowPurchaseOrder Exchange Document

The ShowPurchaseOrder document is used whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. Refer to Example 12.

Example 12: ShowPurchaseOrder

  <ApplicationArea>
    <cmn:DocumentGUID>token</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>token</cmn:ReferenceId>
      <cmn:Confirmation>true</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2001-12-17T09:30:47Z</cmn:CreationDateTime>
  </ApplicationArea>
</ShowPurchaseOrder>
<cmn:UserArea>
    <cmn:Any>text</cmn:Any>
</cmn:UserArea>
</ApplicationArea>
<DataArea>
    <PurchaseOrder>
        <Header>
            <Language>token</Language>
            <Currency>token</Currency>
            <DimensionalUOM>token</DimensionalUOM>
            <WeightUOM>token</WeightUOM>
            <DocumentDateTime>2001-12-17T09:30:47Z</DocumentDateTime>
            <DocumentIds>
                <cmn:CustomerRFQDocumentId>
                    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
                </cmn:CustomerRFQDocumentId>
                <cmn:SupplierQuoteDocumentId>
                    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
                </cmn:SupplierQuoteDocumentId>
                <cmn:CustomerPurchaseOrderId>
                    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
                </cmn:CustomerPurchaseOrderId>
                <cmn:SupplierSalesOrderId>
                    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
                </cmn:SupplierSalesOrderId>
            </DocumentIds>
            <DocumentReferenceIds>
                <cmn:CustomerRFQDocumentReference>
                    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
                </cmn:CustomerRFQDocumentReference>
                <cmn:SupplierQuoteDocumentReference>
                    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
                </cmn:SupplierQuoteDocumentReference>
                <cmn:CustomerPODocumentReference>
                    <cmn:CustomerDocumentId>token</cmn:CustomerDocumentId>
                </cmn:CustomerPODocumentReference>
                <cmn:SupplierSalesOrderDocumentReference>
                    <cmn:SupplierDocumentId>token</cmn:SupplierDocumentId>
                </cmn:SupplierSalesOrderDocumentReference>
            </DocumentReferenceIds>
        </Header>
    </PurchaseOrder>
</DataArea>
Internet Parts Ordering – Functional Implementation Guide

<?xml version="1.0" encoding="UTF-8"?>
<DocumentReferenceIds>
  <Note author="token">String</Note>
  <BackOrderedInd>true</BackOrderedInd>
  <DropShipIndicator>true</DropShipIndicator>
  <TransportationTermCode issuingAgency="token">aaa</TransportationTermCode>
  <FreightTerms>
    <cmn:FreightTerm>
      <cmn:CommonCarrier freightTermCode="token">String</cmn:CommonCarrier>
      <cmn:ShippingMethod freightTermCode="token">String</cmn:ShippingMethod>
      <cmn:TransportationMethod freightTermCode="token">String</cmn:TransportationMethod>
      <cmn:CarrierAccount>token</cmn:CarrierAccount>
      <cmn:ShippingCharge>0.0</cmn:ShippingCharge>
    </cmn:FreightTerm>
  </FreightTerms>
  <ExtendedPrice>0.0</ExtendedPrice>
  <AdditionalCharges>
    <cmn:AdditionalCharge>
      <cmn:Description>String</cmn:Description>
      <cmn:Total>0.0</cmn:Total>
    </cmn:AdditionalCharge>
  </AdditionalCharges>
  <TotalAmount>0.0</TotalAmount>
  <PaymentTerms>
    <cmn:TermId>String</cmn:TermId>
    <cmn:PaymentMethod>String</cmn:PaymentMethod>
  </PaymentTerms>
  <BillToParty>
    <cmn:PartyId>token</cmn:PartyId>
    <cmn:Name>String</cmn:Name>
    <cmn:AddressLine>String</cmn:AddressLine>
    <cmn:City>String</cmn:City>
    <cmn:StateOrProvince>token</cmn:StateOrProvince>
    <cmn:PostalCode>token</cmn:PostalCode>
    <cmn:Country>token</cmn:Country>
    <cmn:Telephone>token</cmn:Telephone>
  </BillToParty>
  <ShipToParty>
    <cmn:PartyId>token</cmn:PartyId>
  </ShipToParty>
</DocumentReferenceIds>
<cnm:Name>String</cnm:Name>
<cnm:AddressLine>String</cnm:AddressLine>
<cnm:City>String</cnm:City>
<cnm:StateOrProvince>token</cnm:StateOrProvince>
<cnm:PostalCode>token</cnm:PostalCode>
<cnm:Country>token</cnm:Country>
<cnm:Telephone>token</cnm:Telephone>
</ShipToParty>
<SoldToParty>
<cnm:PartyId>token</cnm:PartyId>
<cnm:Name>String</cnm:Name>
<cnm:AddressLine>String</cnm:AddressLine>
<cnm:City>String</cnm:City>
<cnm:StateOrProvince>token</cnm:StateOrProvince>
<cnm:PostalCode>token</cnm:PostalCode>
<cnm:Country>token</cnm:Country>
<cnm:Telephone>token</cnm:Telephone>
</SoldToParty>
<ShipFromParty>
<cnm:PartyId>token</cnm:PartyId>
<cnm:Name>String</cnm:Name>
<cnm:AddressLine>String</cnm:AddressLine>
<cnm:City>String</cnm:City>
<cnm:StateOrProvince>token</cnm:StateOrProvince>
<cnm:PostalCode>token</cnm:PostalCode>
<cnm:Country>token</cnm:Country>
<cnm:Telephone>token</cnm:Telephone>
</ShipFromParty>
<HostParty>
<cnm:PartyId>token</cnm:PartyId>
</HostParty>
</UserArea>
</Lines>
</Line>
<LineNumber>2</LineNumber>
<Weight>0.0</Weight>
<Length>0.0</Length>
<cmn:PriceType>AC1</cmn:PriceType>
<cmn:Price uom="token">0.0</cmn:Price>
<cmn:PriceBreak uom="token">2</cmn:PriceBreak>
</cmn:Pricing>
</Prices>
<ExtendedPrice>0.0</ExtendedPrice>
<FreightTerms>
<cmn:FreightTerm>
<cmn:CommonCarrier freightTermCode="token">String</cmn:CommonCarrier>
<cmn:ShippingMethod freightTermCode="token">String</cmn:ShippingMethod>
<cmn:TransportationMethod freightTermCode="token">String</cmn:TransportationMethod>
<cmn:CarrierAccount>token</cmn:CarrierAccount>
<cmn:ShippingCharge>0.0</cmn:ShippingCharge>
</cmn:FreightTerm>
</FreightTerms>
<AdditionalCharges>
<cmn:AdditionalCharge>
<cmn:Description>String</cmn:Description>
<cmn:Total>0.0</cmn:Total>
</cmn:AdditionalCharge>
</AdditionalCharges>
>TotalAmount>0.0</TotalAmount>
<PromisedShipDate>2001-12-17T09:30:47Z</PromisedShipDate>
<Note author="token">String</Note>
<ShipFromParty>
<cmn:PartyId>token</cmn:PartyId>
<cmn:Name>String</cmn:Name>
<cmn:AddressLine>String</cmn:AddressLine>
<cmn:City>String</cmn:City>
<cmn:StateOrProvince>token</cmn:StateOrProvince>
<cmn:PostalCode>token</cmn:PostalCode>
Confirmation Exchange Document

A Confirmation document is used in all asynchronous PurchaseOrder exchange patterns, as well as the synchronous communication with delayed response exchange - refer to Section 4.3 for guidance. Section 5 provides a detailed description of the Confirmation document and its use.

Shipment Exchange Document Patterns

This section describes the exchange of IPO v3 Shipment documents, similar to exchanging an EDI Advance Shipment Notice (ASN). An asynchronous implementation requires only one or two documents, while a synchronous implementation requires up to three. Table 23 shows the IPO Shipment exchange documents used in the asynchronous pattern, as illustrated in Figures 17 and 18, while Figures 19 and 20 illustrate the synchronous exchange pattern defined in Table 24.

Table 23: Asynchronous exchange of Shipment Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Asynchronous with Confirmation required</th>
<th>Asynchronous without Confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShowShipment</td>
<td>Sent by the Seller in response to a Buyer GetShipment request</td>
<td>Sent by the Seller in response to Buyer GetShipment request</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by the Seller in response to a GetShipment and by the Buyer in response to a ShowShipment.</td>
<td>Used to report invalid content in a trading partner document.</td>
</tr>
</tbody>
</table>
Figure 17: Asynchronous exchange of Shipments without confirmation

Figure 18: Asynchronous exchange of Shipments with confirmation

Table 24: Synchronous Exchange of Shipment documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Synchronous with delayed response</th>
<th>Synchronous with immediate response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetShipment</td>
<td>Sent by the Buyer to request shipment status, this is the first document in the process.</td>
<td>Sent by the Buyer to request shipment status, this is the first DOCUMENT in the process.</td>
</tr>
<tr>
<td>ShowShipment</td>
<td>Sent by the Seller in response to a GetShipment.</td>
<td>Sent by the Seller in response to a GetShipment.</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by Seller in response to a GetShipment and/or by the Buyer in response to ShowShipment.</td>
<td>Used to report an invalid document.</td>
</tr>
</tbody>
</table>

Figure 19: Synchronous exchange of Shipment documents with immediate response
Exchanging Multiple Shipping Documents to Complete an Order

There may be times when a Seller is unable to fulfill an order in a single shipment, typically because the quantity on-hand is insufficient for one or more requested items. If the Buyer accepts backorders, the Seller may enter a non-zero BackOrderedQuantity for each backordered item in the ShowShipment document.

In a synchronous exchange the Buyer must issue GetShipment requests to determine if the backordered quantity has shipped. How quickly and how often these requests are made is left up to each trading partner pair but this should be consistent with the Seller’s known shipping practices. Let’s say the Seller is known to ship only once each day, sending a GetShipment request every five minutes doesn’t provide much value. Regardless of the frequency, a Buyer must continue polling the Seller until he receives a ShowShipment document where the BackOrderedQuantity value in all items is zero.

Example of Backordered Items:

Suppose the Buyer orders two line items, ten units of item A and five units of item B. The Seller’s first shipment contains only seven units of item A and none of item B, a second shipment contains the remaining three units of A, and the third shipment contains all five units of B. Relevant portions of the ShipmentInventoryItem section within the Seller’s three ShowShipment documents are shown in the following examples:

Example 13: Backordered Items - Shipment #1

```xml
<ShipmentInventoryItem>
    <ShipmentInventoryItemIds>
        <CustomerItemId><Id>A</Id></CustomerItemId>
        <SupplierItemId><Id>1234</Id></SupplierItemId>
    </ShipmentInventoryItemIds>
</ShipmentInventoryItem>
```
Because one or more non-zero BackOrderedQuantity fields are present in the first ShowShipment document, the Buyer knows to issue another GetShipment. The Seller responds with a Confirmation document to each of the Buyer’s GetShipment requests until he is able to ship the backordered items. Eventually the balance of item A is shipped, so the Seller sends a second ShowShipment document:

**Example 14: Backordered Items - Shipment #2**

```xml
<ShipmentInventoryItem>
    <ShipmentInventoryItemIds>
        <CustomerItemId><Id>A</Id></CustomerItemId>
        <SupplierItemId><Id>123456</Id></SupplierItemId>
    </ShipmentInventoryItemIds>
    <ItemDescription>ITEM A</ItemDescription>
    <OrderQuantity uom="EA">10</OrderQuantity>
    <ItemQuantity uom="EA">3</ItemQuantity>
    <BackOrderedQuantity uom="EA">0</BackOrderedQuantity>
</ShipmentInventoryItem>
<ShipmentInventoryItem>
    <ShipmentInventoryItemIds>
        <CustomerItemId><Id>B</Id></CustomerItemId>
        <SupplierItemId><Id>5678</Id></SupplierItemId>
    </ShipmentInventoryItemIds>
    <ItemDescription>ITEM B</ItemDescription>
    <OrderQuantity uom="EA">5</OrderQuantity>
    <ItemQuantity uom="EA">0</ItemQuantity>
    <BackOrderedQuantity uom="EA">5</BackOrderedQuantity>
</ShipmentInventoryItem>
```
Note that the original order quantity of ten is repeated for item A in this second document, but BackOrderedQuantity now shows the line is complete. Item B however still has a non-zero BackOrderedQuantity, so the Buyer must issue yet another GetShipment request. As in the previous example, the Seller responds with a Confirmation document to each GetShipment request until he is able to fill the backorder. Once the final B units are shipped, the Seller transmits the following:

**Example 15: Backordered Items - Shipment #3**

```xml
<ShipmentInventoryItem>
  <ShipmentInventoryItemIds>
    <CustomerItemId><Id>B</Id></CustomerItemId>
    <SupplierItemId><Id>5678</Id></SupplierItemId>
  </ShipmentInventoryItemIds>
  <Description>ITEM B</Description>
  <OrderQuantity uom="EA">5</OrderQuantity>
  <ItemQuantity uom="EA">5</ItemQuantity>
  <BackOrderedQuantity uom="EA">0</BackOrderedQuantity>
</ShipmentInventoryItem>
```

Note that this third ShowShipment example does not include the ShipmentInventoryItem component for item A, because that item shipped complete in the second shipment. Since the remaining instance of BackOrderedQuantity now equals zero, the Buyer knows the order is complete.

**Application Area Reference ID Information**

Table 25 illustrates the use of the ReferenceId element for the documents used in the IPO Shipment collaborative exchange patterns.
Table 25: Illustration of the correct values for the ReferenceId element

<table>
<thead>
<tr>
<th>Asynchronous without confirmation, or Synchronous with immediate response:</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote</td>
</tr>
<tr>
<td>AddQuote</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asynchronous with confirmation, or Synchronous with delayed response:</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote</td>
</tr>
<tr>
<td>Confirmation</td>
</tr>
<tr>
<td>GetQuote</td>
</tr>
<tr>
<td>Confirmation</td>
</tr>
<tr>
<td>GetQuote</td>
</tr>
<tr>
<td>ShowQuote</td>
</tr>
</tbody>
</table>

**Note:** A GUID is much longer than the examples above - the structure is shown in Appendix 10.3. Consider the above examples representative of the last five characters of an actual GUID, e.g., 2FAC1234-31F8-11B4-A222-08002B3A0001

### Data Area Information

The Shipment Base schema provides the DataArea content for documents used in the Shipment exchange pattern, as shown in Table 26.

Table 26: Shipment Exchange Pattern

<table>
<thead>
<tr>
<th>Shipment Documents</th>
<th>Both Shipment Documents use the <code>Shipment</code> Base Document Schema</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShowShipment</td>
<td>Some Synchronous Exchange Patterns may also use a Confirmation document during the exchange.</td>
</tr>
<tr>
<td>GetShipment</td>
<td></td>
</tr>
</tbody>
</table>
A Shipment document describes the Seller’s intent to deliver a specific quantity of goods to a single customer destination. The Seller should transmit shipment information only when the required information is finalized, e.g. quantity, items details, carrier, level of service, physical packaging of the goods. Some Sellers may not have these details until the shipment is picked and packed but other Sellers may be able to furnish the required information prior to fulfillment. Those Sellers can now use an IPO v3 ShowShipment document in place an EDI Advance Ship Notice (ASN).

**Data Area Hierarchy**

Earlier versions of IPO required a separate Shipment document for each individual PurchaseOrder. Although Sellers might wish to consolidate shipments by grouping merchandise ordered on multiple PurchaseOrders for shipment to the same physical location, individual ShowShipment documents must be sent to the Buyer for each PurchaseOrder included in the shipment.

The new IPO v3 Shipment Data Area is organized hierarchically, where each Shipment may contain one or more ShipUnits. A ShipUnit is a collection of goods that have been packaged by a Seller for carrier transportation to a destination specified by the Buyer and generally considered the smallest "thing" that can be individually moved and tracked throughout the carrier's transportation network. The ShipUnit represents any uniquely identifiable and traceable assembly; an Express Mail envelope, a parcel express package, a pallet of identical or mixed goods, truck trailer, rail car or cargo container.

As shown in Figure 21, each ShipUnit consists of, at most, one ShipmentInventoryItems structure containing one or more ShipmentInventoryItem lines.
Consider these two scenarios:

1. A Buyer orders a large variety of chassis parts, including a couple of tie rod ends, a couple of ball joints, and a handful of different bushings. He also orders a steering rack and a power steering pump on the same PurchaseOrder. The shipping department packs all of the chassis parts in a single large box, leaves the rack and pump in the manufacturer’s packaging, and does not shrink-wrap or otherwise physically join these three boxes. This Shipment would have three ShipUnits, one for each box. Two of the three ShipUnits (the rack and the pump) each have a single ShipmentInventoryItem; the third ShipUnit has many ShipmentInventoryItem elements, one for each line item on the order.

2. Buyer orders eight 225/40R17 and twelve 205/60R15 tires; ten different sizes of oil filters, which come packaged in boxes of 24; and a radiator. The shipping department shrink-wraps the tires on one pallet, and then stacks the ten boxes of oil filters and the radiator on a second pallet. This Shipment would have two ShipUnits, one for each pallet. The first ShipUnit has two ShipmentInventoryItems, one for each kind of tire, and no containers. The second ShipUnit has one ShipmentInventoryItem, for the radiator, and ten Containers, one for each box of oil filters.
Each of the ten Containers has a single ShipmentInventoryItem that represents the kind of oil filter in the box. (Alternatively, the second pallet could have eleven ShipmentInventoryItem elements, one for each line item.)

As these examples illustrate, ShipUnits and their component structures are designed to describe the results of an inventory picking and packing operation and allow Sellers to provide customers with as much detailed information as possible about the packaging configuration of their orders.

A detailed description of all XML declarations used within the DataArea of each Shipment document can be found in the Shipment Base Document section located in Section 7.4. A list of the XML declarations contained in this base document is shown in the first column of Table 27, with the two Shipment documents shown across the header row to the right of the element listing. If the XML Base Schema used in the exchange document requires a specific declaration, a capital “R” has been placed in intersecting cell. If the exchange pattern requires the use of a declaration, but this is not enforced by the XML schema, a lower-case “r” is shown.

Implementation Note: Required child-level declarations contained WITHIN optional Parent element hierarchies are considered optional by most XML parsers, UNLESS the optional Parent element IS populated. When an optional Parent element is populated, the schema enforces use of any REQUIRED declarations within the optional Parent’s hierarchy.

Table 27: Shipment Base Document Declarations

<table>
<thead>
<tr>
<th>Shipment Document Elements</th>
<th>ShowShipment</th>
<th>GetShipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>“R” required - “r” required, not enforced</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Header</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Currency</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>DimensionalUOM</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>WeightUOM</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>DocumentDateTime</td>
<td>R</td>
<td></td>
</tr>
</tbody>
</table>
### ExpectedDeliveryDate

<table>
<thead>
<tr>
<th>DocumentIds</th>
</tr>
</thead>
<tbody>
<tr>
<td>CustomerRFQDocumentId</td>
</tr>
<tr>
<td>CustomerDocumentId</td>
</tr>
<tr>
<td>SupplierQuoteDocumentId</td>
</tr>
<tr>
<td>SupplierDocumentId</td>
</tr>
</tbody>
</table>

### Shipment Document Elements

"R" required - "r" required, not enforced

- **ShowShipment**
- **GetShipment**

<table>
<thead>
<tr>
<th>DocumentReferenceIds</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
</tr>
<tr>
<td>r</td>
</tr>
</tbody>
</table>

- CustomerRFQDocumentRef
- CustomerDocumentId
- SupplierQuoteDocumentRef
- SupplierDocumentId
- CustomerPODocumentRef
<table>
<thead>
<tr>
<th>CustomerDocumentId</th>
<th>R</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>SupplierSalesOrderDocumentRef</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td>R</td>
<td>r</td>
</tr>
<tr>
<td>SupplierInvoiceDocumentRef</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AlternateDocumentIds**

<table>
<thead>
<tr>
<th>CustomerDocumentId</th>
<th>R</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>RevisedPOIdentifier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CarrierDocumentId</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BrokerDocumentId</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LastModificationDateTime</th>
<th>R</th>
</tr>
</thead>
</table>

**Warehouse**

**PartialShipmentInd**

### Shipment Document Elements

"R" required - "r" required, not enforced

<table>
<thead>
<tr>
<th>Shipment Document Elements</th>
<th>ShowShipment</th>
<th>GetShipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShipUnitQuantity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>QuantityShippedToDate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Prices**

<table>
<thead>
<tr>
<th>Pricing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PriceType</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>uom</td>
</tr>
<tr>
<td>PriceBreak</td>
<td>uom</td>
</tr>
</tbody>
</table>

**AdditionalCharges**

<table>
<thead>
<tr>
<th>AdditionalCharge</th>
<th>R</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Total</td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>

**Rebate**

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

**Discount**

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

**TotalWeight**

<table>
<thead>
<tr>
<th>TotalWeight</th>
<th>R</th>
</tr>
</thead>
</table>

**FreightTerms**

<table>
<thead>
<tr>
<th>FreightTerm</th>
<th>R</th>
<th>R</th>
</tr>
</thead>
</table>
## Shipment Document Elements

“R” required - “r” required, not enforced

<table>
<thead>
<tr>
<th></th>
<th>ShowShipment</th>
<th>GetShipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CommonCarrier</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ShippingMethod</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>TransportationMethod</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShippingCharge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TotalAmount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FreightCost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ActualShippedDateTime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BillToParty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PartyId</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>LocationCode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>AddressLine</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>City</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>StateOrProvince</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>ShowShipment</td>
<td>GetShipment</td>
</tr>
<tr>
<td>----------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>HostParty</td>
<td>R</td>
<td>r</td>
</tr>
<tr>
<td>PartyId</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>UserArea</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ShipUnits**

<table>
<thead>
<tr>
<th></th>
<th>ShowShipment</th>
<th>GetShipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShippingTrackingId</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>BillOfLadingId</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PackingListId</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShipUnitSequence</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ShipUnitTotal</td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>
### Shipment Document Elements

<table>
<thead>
<tr>
<th></th>
<th>ShowShipment</th>
<th>GetShipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShipmentInventoryItemIds</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>CustomerItemId</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------</td>
<td></td>
</tr>
<tr>
<td>SupplierItemId</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PartialShipmentInd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ItemDescription</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OrderQuantity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ItemQuantity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BackOrderedQuantity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BillToParty**
- Same as Header/BillToParty

**ShipToParty**
- Same as Header/BillToParty

**ShipFromParty**
- Same as Header/BillToParty

**UserArea**

### Freight Terms in Shipping Documents

Trading partners wishing to use an IPO v3 Shipment exchange document as an advanced ship notice must use the same carrier, shipping method and transportation method codes used in an EDI ASN. This rule applies solely to the freight term codes used in Shipment documents; this is not a requirement for other IPO exchange documents. Trading partners wishing to use IPO Shipment documents in lieu of, or in
combination with, EDI documents/document processing should follow these guidelines instead of those in Section 8.5.

**FreightTerms/:** Container element for Freight Terms.

**FreightTerm/:** Contains elements identifying the carrier and transportation methods.

**CommonCarrier/:** Name/Description of the freight carrier

- **freightTermCode:** use the Standard Carrier Alpha Codes (SCAC) as defined in the “Directory of Standard Carrier Alpha Codes” as assigned by the National Motor Freight Traffic Association, Inc. NMFTA, e.g., FEDX, UPSN, USPS, YFSY, RDWY, ODFL. Refer to website [http://www.nmfta.org/Pages/Scac.aspx](http://www.nmfta.org/Pages/Scac.aspx) for additional information.

**ShippingMethod/**

**ShippingMethod/freightTermCode**

Use this table for ShippingMethod element and freightTermCode content:

**Table 28: ASN Shipping Method Freight Term Codes**

<table>
<thead>
<tr>
<th>ShippingMethod element</th>
<th>freightTermCode attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Day Service</td>
<td>3D</td>
</tr>
<tr>
<td>9 A.M.</td>
<td>9A</td>
</tr>
<tr>
<td>Next Day Air</td>
<td>ND</td>
</tr>
<tr>
<td>Overnight</td>
<td>ON</td>
</tr>
<tr>
<td>Second Day Air</td>
<td>SC</td>
</tr>
<tr>
<td>Saturday</td>
<td>SD</td>
</tr>
<tr>
<td>Second Day</td>
<td>SE</td>
</tr>
<tr>
<td>Standard Ground</td>
<td>SG</td>
</tr>
<tr>
<td>Standard Ground Hundred Weight</td>
<td>SI</td>
</tr>
</tbody>
</table>
TransportationMethod/

TransportationMethod/freightTermCode

Use this table for TransportationMethod element and freightTermCode content:

Table 29: ASN Transportation Method Freight Term Codes

<table>
<thead>
<tr>
<th>TransportationMethod element</th>
<th>freightTermCode attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>A</td>
</tr>
<tr>
<td>Motor</td>
<td>M</td>
</tr>
<tr>
<td>Rail</td>
<td>R</td>
</tr>
<tr>
<td>Ocean / Ship</td>
<td>O</td>
</tr>
<tr>
<td>Truck</td>
<td>T</td>
</tr>
</tbody>
</table>

Shipment - Base Document Content

Shipment/Header/


Currency: The three-letter currency code defined in the ISO 4217 Code Table.

DimensionalUOM: The two-character code defined in ANSI Code Table 355 for dimensional measures.

WeightUOM: The two-character weight measurement code defined in ANSI Code Table 355.

DocumentDateTime: The date and time the document was created, formatted in ISO 8601 extended format of YYYY-MM-DDThh:mm:ss, followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference - fractional seconds may be included.

ExpectedDeliveryDate: Date the shipment is expected to arrive at the Buyer location.

DocumentIds/

CustomerRFQDocumentID/
**CustomerDocumentId**: AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

**SupplierQuoteDocumentId**/

**SupplierDocumentId**: AddQuote Document Identifier generated by the Supplier's (Seller's) application.

**CustomerPurchaseOrderId**/

**CustomerDocumentId**: ProcessPurchase Order Document Identifier generated by the Customer's (Buyer's) application.

**SupplierSalesOrderId**/

**SupplierDocumentId**: AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

**SupplierInvoiceId**/

**SupplierDocumentId**: Invoice Document Identifier generated by the Supplier's (Seller's) application.

**DocumentReferenceIds**/

**CustomerRFQDocumentRef**/

**CustomerDocumentId**: References the AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

**SupplierQuoteDocumentRef**/

**SupplierDocumentId**: References the AddQuote Document Identifier generated by the Supplier's (Seller's) application.

**CustomerPODocumentRef**/

**CustomerDocumentId**: References the ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

**SupplierSalesOrderDocumentRef**/

**SupplierDocumentId**: References the AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.
SupplierInvoiceDocumentRef/

SupplierDocumentId: References the Invoice Document Identifier generated by the Supplier's (Seller's) application.

AlternateDocumentIds/: This structure contains Document Identifiers related to the Order and Shipment.

CustomerDocumentId: Contains the PurchaseOrder identifier generated by Buyer's application, formatted as an alphanumeric string. The contents must match the corresponding field in the ProcessPurchaseOrder and AcknowledgePurchaseOrder documents that triggered the shipment.

RevisedPOIdentifier: Contains the identifier of the revised P.O., if applicable, generated by Buyer's application. If P.O. revisions are not supported by the Buyer's application, this field is not used.

SupplierDocumentId: Order/Confirmation number generated by the Supplier and communicated via AcknowledgePurchaseOrder. If this is provided by the Buyer, then Seller will respond with GetShipment against this id and ignoring AlternateDocumentId/CustomerDocumentId.

CarrierDocumentId: Contains the waybill number used by the trucking company or package carrier (or its equivalent for air freight and other types of carriers) for the entire shipment. Compare this field to ShipUnit/ShippingTrackingId, which contain similar information at the package level.

BrokerDocumentId: Contains the reference identifier used by a freight forwarder or third-party logistics provider.

LastModificationDateTime: Indicates when the shipment information was last modified in the host application, i.e. to change Order quantities or when supervisor approval was granted. Content must be formatted in ISO8601 extended format of YYYY-MM-DDThh:mm:ss, followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference - fractional seconds may be included.

Warehouse: Describes the facility where the shipped inventory is stored, information that could be useful in third-party logistics.

PartialShipmentInd: Contains a Boolean value of either "1" indicating a partial shipment, or "0" indicating the entire Order was shipped complete.

ShipUnitQuantity/: Contains the number of units or Items shipped.
\textbf{uom}: Unit of Measure.

\textbf{QuantityShippedToDate}: Quantity of the ordered Item that has been shipped.

\textbf{uom}: Unit of Measure.

\textbf{Note}: Free form text element used to annotate the document or exchange process.

\textbf{author}: Identifies the author of the note.

\textbf{Prices}: Container element for Prices.

\textbf{Pricing}: Item pricing by industry PriceType, as defined in the Auto Care Association PIES PriceType Code Table.

\textbf{PriceType}: Code value identifying the type of price conveyed- refer to the Auto Care Association PIES PriceType Code Table for complete list of enumerated types.

\textbf{Price}: The Item value for the PriceType, as defined in the Auto Care Association PIES Pricing segment.

\textbf{uom}: Unit of measure

\textbf{PriceBreak}: Incremental unit quantity required of the Item to receive a price break, as defined in the Auto Care Association PIES Pricing segment.

\textbf{uom}: Unit of measure.

\textbf{AdditionalCharges}: Container element for Additional Charges.

\textbf{AdditionalCharge}: One or more unique charges associated with the purchase or delivery of the Order.

\textbf{Description}: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

\textbf{Total}: Total amount of the charge, rebate or credit.

\textbf{Rebate}: One or more rebates associated with the purchase or delivery of the Order.

\textbf{Description}: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

\textbf{Total}: Total amount of the charge, rebate or credit.

\textbf{Discount}: One or more discounts associated with the purchase or delivery of the Order.
**Description:** Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total:** Total amount of the charge, rebate or credit.

**TotalWeight:** Total weight of all ship units combined.

**FreightTerms/:** Container element for Freight Terms.

- **FreightTerm/:** Contains elements identifying the carrier and transportation methods.
  - **CommonCarrier/:** Name of the shipping carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.
    - **freightTermCode:** Contains one of the code types defined in the referenced element.
  - **ShippingMethod/:** Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.
    - **freightTermCode:** Contains one of the code types defined in the referenced element.
  - **TransportationMethod/:** A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.
    - **freightTermCode:** Contains one of the code types defined in the referenced element.
  - **CarrierAccount:** Account number used for the transportation carrier, e.g. FedX, UPS, DHL, Greyhound, Burlington Northern.
  - **ShippingCharge:** Shipping costs for the Order.

**TotalAmount:** Contains the total value for the Order, including additional charges, e.g. customization, shipping and handling, or tax.

**FreightCost:** Contains the amount charged to the Buyer for transporting the shipment, excluding additional charges such as handling, hazmat charges, freight forwarder fees, etc.
**ActualShippedDateTime**: Contains the actual date and time a Shipment occurs. It is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**BillToParty**: The content of this component describes the entity, organization, or person responsible for paying the invoice.

- **PartyId**: Contains information that represents a business entity that can be used to route a request to a service endpoint.
- **LocationCode**: Code used to identify the location of a party.
- **Name**: The formal or trade name of the entity.
- **AddressLine**: Indicates the multiple lines of an address. The first line is typically a street name and number.
- **City**: The city name.
- **StateOrProvince**: ISO 3166-2 two-letter abbreviation for the state or province to which the invoice should be mailed, e.g. “IL” for Illinois, “QC” for Quebec.
- **PostalCode**: ZIP or postal code for the address.
- **Country**: ISO 3166-1 two-letter code for the country, e.g. “US” for United States, “CA” for Canada.
- **County**: The county for the address.
- **Telephone**: Business contact’s telephone number, formatted as +999 (999) 9999999.

**ShipToParty**: The content of this component describes the entity, organization, or person, to which the Ordered items will be shipped or delivered. The ShipToParty component structure is identical to Header/BillToParty, and in many cases the information provided here will also match the content in that component, although address and contact information is frequently different for larger organizations. Note that Shipment does not provision for more than one ShipToParty, as it's assumed every Item in an Order will be delivered to the same address.

**ShipFromParty**: The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty.

**HostParty**: Component describes the entity to which the document should be routed.
**PartyId:** Contains information that represents a business entity that can be used to route a request to a service endpoint.

**UserArea:** Allows the user of IPO to extend the specification in order to exchange additional information which isn't defined in the standard. This UserArea should remain the last element in the Header sequence, prior to the ShipUnits element.

**Shipment/ShipUnits/ShipUnit**

**ShippingTrackingID:** A unique identifier used to track an individual package that may be part of a larger shipment, e.g. express parcel tracking number, SCC-18, Progressive Number, etc.

**BillOfLadingId:** Matching the Bill of Lading across the Return Docs allows for Invoice to Advanced Ship Notice comparison. Must be printed on Packing List.

**PackingListId:** Matching the Bill of Lading across the Return Docs allows for Invoice to Advanced Ship Notice comparison. Must be printed on Packing List.

**ShipUnitSequence:** Number denoting a particular ShipUnit within the shipment. This field, in conjunction with ShipUnitTotalId, communicates the same information conveyed by the phrase “Box 1 of 5”.

**ShipUnitTotal:** The total quantity of ShipUnits in the shipment.

**TotalWeight:** Weight of the ShipUnit.

**TotalAmount:** Contains the total value for the ShipUnit, including additional charges, e.g. customization, shipping and handling or tax.

**FreightCost:** Contains the amount charged to the Buyer for transporting the shipment, excluding additional charges such as handling, hazmat charges, freight forwarder fees, etc.

**FreightTerms:** Container element for Freight Terms.

**FreightTerm:** Contains elements identifying the carrier and transportation methods.

**CommonCarrier:** Name of the Shipping Carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.

**freightTermCode:** Contains one of the code types defined in the referenced element.
**ShippingMethod**: Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.

  - **freightTermCode**: Contains one of the code types defined in the referenced element.

**TransportationMethod**: A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.

  - **freightTermCode**: Contains one of the code types defined in the referenced element.

**CarrierAccount**: Account number used for the transportation carrier, e.g. FedX, UPS, DHL, Greyhound, Burlington Northern.

**ShippingCharge**: Shipping costs for the order.

**ActualShippedDateTime**: Contains the actual date and time a ShipUnit was shipped. It is formatted in the ISO 8601 extended format of YYYY-MM-DDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**ShipmentInventoryItems**: Container element for Shipment Inventory Item.

  - **ShipmentInventoryItem**: A shipped Line Item, corresponding to the Line Item on a PurchaseOrder.

  - **ShipmentInventoryItemIds**: A shipped Line Item identifier, corresponding to the Line Item on a PurchaseOrder.

    - **CustomerItemld**: The item number known to the Buyer. This may be the same as the Supplier's catalog identifier, the customer's SKU, or some other product identifier.

    - **SupplierItemld**: An Item identifier known to the Supplier. If this is different than a Buyer's identifier, it may be used as a cross-reference to the CustomerItemld.

**PartialShipmentInd**: Used to indicate a Buyer acceptance of partial shipments when some of the requested Items are unavailable for shipment. Contains a Boolean value of either "1" indicating a partial shipment, or "0" indicating the entire Order was shipped complete.
**ItemDescription**: The description of the shipped Item, which must match the PurchaseOrder/Line/OrderItem/Description for the Item.

**OrderQuantity**: Quantity of the Item being ordered. The contents of the element must be the same as the content in PurchaseOrder/Line/OrderQuantity for this Item.

  *uom*: Unit of measure.

**ItemQuantity**: The amount or quantity of an item.

  *uom*: Unit of measure.

**BackOrderedQuantity**: The quantity of the Item on backorder, which must equal the OrderQuantity minus ItemQuantity.

  *uom*: Unit of measure

**ExtendedPrice**: This element contains the total value of the Line Item, excluding any additional charges or fees such as tax or shipping.

**BillToParty**: The content of this component describes the entity, organization, or person responsible for paying the invoice. The elements contained in the BillToParty component are identical to Header/BillToParty.

**ShipToParty**: The content of this component describes the entity, organization, or person, to which the Ordered Items will be shipped or delivered. The ShipToParty component structure is identical to BillToParty, and in many cases the information provided here will also match the content in that component, although address and contact information is frequently different for larger organizations. Information provided here overrides any Header/ShipToParty information for this Item.

**ShipFromParty**: Identifies the "ship from" location for individual products that may be shipped from multiple ship locations, i.e., if the buyer orders 10 units, and a supplier has 5 in one location, and 5 in another location, this element will identify the ship locations for these items. Information provided here overrides any Header/ShipFromParty information for this Item.

**UserArea**: Allows the user of IPO to extend the specification in order to exchange additional information which isn't defined in the standard. This UserArea should remain the last element in the ShipUnit sequence.
Shipment Exchange Documents

Up to three documents may be used in a Shipment exchange – GetShipment, ShowShipment and a Confirmation Document.

GetShipment Exchange Document

The GetShipment document is used whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. Refer to Example 16.

Example 16: GetShipment

```xml
<?xml version="1.0" encoding="UTF-8"?>
  <ApplicationArea>
    <cmn:DocumentGUID>F452B058-B9E7-C410-691A-26EFB899851</cmn:DocumentGUID>
    <cmn:Sender>
      <cmn:ReferenceId>F452B058-B9E7-C410-691A-26EFB899851</cmn:ReferenceId>
      <cmn:Confirmation>false</cmn:Confirmation>
    </cmn:Sender>
    <cmn:CreationDateTime>2010-03-26T05:00:48Z</cmn:CreationDateTime>
  </ApplicationArea>
  <DataArea>
    <Shipment>
      <Header>
        <Language>eng</Language>
        <Currency>USD</Currency>
        <DimensionalUOM>IN</DimensionalUOM>
        <WeightUOM>LB</WeightUOM>
        <DocumentDateTime>2010-03-26T05:00:48Z</DocumentDateTime>
        <DocumentIds/>
        <DocumentReferenceIds>
          <cmn:CustomerPODocumentReference>
            <cmn:CustomerDocumentId>PO1234</cmn:CustomerDocumentId>
          </cmn:CustomerPODocumentReference>
          <cmn:SupplierSalesOrderDocumentReference>
            <cmn:SupplierDocumentId>44444-20090617-802280</cmn:SupplierDocumentId>
          </cmn:SupplierSalesOrderDocumentReference>
        </DocumentReferenceIds>
      </Header>
    </Shipment>
  </DataArea>
</GetShipment>
```
ShowShipment Exchange Document

The ShowShipment document is used whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. Refer to Example 17.

Example 17: ShowShipment

```xml
<?xml version="1.0" encoding="UTF-8"?>
    <ov2:ApplicationArea>
        <co:DocumentGUID>3CA99804-0246-1921-B20B-0004AC0B9EC5</co:DocumentGUID>
        <co:Sender>
            <co:ReferenceId>F452B058-B9E7-C410-691A-26EF8B89851</co:ReferenceId>
            <co:Confirmation>false</co:Confirmation>
        </co:Sender>
        <co:CreationDateTime>2010-03-26T05:03:48Z</co:CreationDateTime>
    </ov2:ApplicationArea>
    <ov2:DataArea>
        <ov2:Shipment>
            <ov2:Header>
                <ov2:Language>eng</ov2:Language>
                <ov2:Currency>USD</ov2:Currency>
                <ov2:DimensionalUOM>IN</ov2:DimensionalUOM>
                <ov2:WeightUOM>LB</ov2:WeightUOM>
                <ov2:DocumentDateTime>2010-03-26T05:03:48Z</ov2:DocumentDateTime>
            </ov2:Header>
            <ov2:DataArea>
                <ov2:CustomerPODocumentReference>
                    <co:CustomerDocumentId>PO1234</co:CustomerDocumentId>
                </ov2:CustomerPODocumentReference>
            </ov2:DataArea>
        </ov2:Shipment>
    </ov2:DataArea>
</ov2:ShowShipment>
```
<co:SupplierSalesOrderDocumentReference>
<co:SupplierDocumentId>444444-20090617-802280</co:SupplierDocumentId>
</co:SupplierSalesOrderDocumentReference>

<ov2:DocumentReferenceIds>
<ov2:LastModificationDateTime>2010-03-26T05:03:48Z</ov2:LastModificationDateTime>
<ov2:ShipUnitQuantity uom="BX">2</ov2:ShipUnitQuantity>
<ov2:TotalWeight>45.21</ov2:TotalWeight>
<ov2:FreightTerms>
<co:FreightTerm>
<co:CommonCarrier freightTermCode=""/>
<co:ShippingMethod freightTermCode="FEDEX 2DAY">FEDEX 2DAY</co:ShippingMethod>
<co:TransportationMethod freightTermCode="A">Air</co:TransportationMethod>
</co:FreightTerm>
</ov2:FreightTerms>
<ov2:ShipToParty>
<co:PartyId>444444</co:PartyId>
<co:Name/>
<co:AddressLine/>
<co:City/>
<co:StateOrProvince/>
<co:PostalCode/>
<co:Country/>
</ov2:ShipToParty>
<ov2:ShipFromParty>
<co:PartyId>6</co:PartyId>
<co:Name/>
<co:AddressLine/>
<co:City/>
<co:StateOrProvince/>
<co:PostalCode/>
<co:Country/>
</ov2:ShipFromParty>
</ov2:Header>
<ov2:ShipUnits>
<ov2:ShipUnit>
<ov2:ShippingTrackingID>919952906223</ov2:ShippingTrackingID>
<ov2:ShipUnitSequence>1</ov2:ShipUnitSequence>
<ov2:ShipUnitTotalId>2</ov2:ShipUnitTotalId>
<ov2:TotalWeight>35.21</ov2:TotalWeight>
<ov2:ActualShippedDateTime>2010-03-26T05:03:48Z</ov2:ActualShippedDateTime>
<ov2:ShipmentInventoryItems>
  <ov2:ShipmentInventoryItem>
    <ov2:ShipmentInventoryItemIds>
      <co:CustomerItemId>45251SK7A00</co:CustomerItemId>
      <co:SupplierItemId>45251SK7A00</co:SupplierItemId>
    </ov2:ShipmentInventoryItemIds>
    <ov2:ItemDescription>BRAKE DISC</ov2:ItemDescription>
    <ov2:OrderQuantity uom="EA">2</ov2:OrderQuantity>
    <ov2:ItemQuantity uom="EA">2</ov2:ItemQuantity>
    <ov2:BackOrderedQuantity uom="EA">0</ov2:BackOrderedQuantity>
  </ov2:ShipmentInventoryItem>
  <ov2:ShipmentInventoryItem>
    <ov2:ShipmentInventoryItemIds>
      <co:CustomerItemId>4351212550</co:CustomerItemId>
      <co:SupplierItemId>4351212550</co:SupplierItemId>
    </ov2:ShipmentInventoryItemIds>
    <ov2:ItemDescription>BRAKE DISC</ov2:ItemDescription>
    <ov2:OrderQuantity uom="EA">2</ov2:OrderQuantity>
    <ov2:ItemQuantity uom="EA">1</ov2:ItemQuantity>
    <ov2:BackOrderedQuantity uom="EA">1</ov2:BackOrderedQuantity>
  </ov2:ShipmentInventoryItem>
  <ov2:ShipmentInventoryItem>
    <ov2:ShipmentInventoryItemIds>
      <co:CustomerItemId>P3972</co:CustomerItemId>
      <co:SupplierItemId>11427833769</co:SupplierItemId>
    </ov2:ShipmentInventoryItemIds>
    <ov2:ItemDescription>OIL FILTER</ov2:ItemDescription>
    <ov2:OrderQuantity uom="EA">3</ov2:OrderQuantity>
    <ov2:ItemQuantity uom="EA">0</ov2:ItemQuantity>
    <ov2:BackOrderedQuantity uom="EA">3</ov2:BackOrderedQuantity>
  </ov2:ShipmentInventoryItem>
</ov2:ShipmentInventoryItems>
Confirmation Exchange Document

A Confirmation document is used in all asynchronous Shipment exchange patterns, as well as the synchronous communication with delayed response exchange - refer to Section 4.3 for guidance. Section 5 provides a detailed description of the Confirmation document and its use.
Invoice Exchange Document Patterns

The Invoice document is new for IPO v3. The IPO Stock Orders work group envisions adopters using this document to complete the order cycle in lieu of their EDI equivalents. This section shows how to use the Invoice documents to automate the sending and responding to Invoice exchange documents. An asynchronous implementation requires only one or two documents, while a synchronous implementation requires up to three. Table 28 shows the IPO Shipment exchange documents used in the asynchronous pattern, as illustrated in Figures 22 & 23, while Figures 24 & 25 illustrate the synchronous exchange pattern defined in Table 29.

Table 30: Asynchronous Exchange of Invoice Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Asynchronous with Confirmation required</th>
<th>Asynchronous without Confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShowInvoice</td>
<td>Sent by the Seller in response to a Buyer GetInvoice request</td>
<td>Sent by the Seller in response to a Buyer GetInvoice request</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by the Seller in response to a GetInvoice and by the Buyer in response to a ShowInvoice.</td>
<td>Used to report invalid document.</td>
</tr>
</tbody>
</table>

Figure 22: Asynchronous exchange of Invoice documents without confirmation

![Figure 22](image)

Figure 23: Asynchronous exchange of Invoice documents with confirmation

![Figure 23](image)
### Table 31: Synchronous Exchange of Invoice Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Synchronous with delayed response</th>
<th>Synchronous with immediate response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetInvoice</td>
<td>Sent by the Buyer to request an Invoice, this is the first document in the process.</td>
<td>Sent by the Buyer to request shipment status, this is the first document in the process.</td>
</tr>
<tr>
<td>ShowInvoice</td>
<td>Sent by the Seller in response to a GetInvoice.</td>
<td>Sent by the Seller in response to a GetInvoice.</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Sent by Seller in response to a GetShipment and/or by the Buyer in response to ShowShipment.</td>
<td>Used to report an invalid document.</td>
</tr>
</tbody>
</table>

**Figure 24: Synchronous communication of Invoice documents with immediate response**

![Diagram of Synchronous communication of Invoice documents with immediate response](image)

**Figure 25: Synchronous communication of Shipment documents with delayed response**

![Diagram of Synchronous communication of Shipment documents with delayed response](image)
Application Area Information

Table 32 illustrates the use of the Referenceld element for the documents used in the IPO Invoice collaborative exchange patterns.

<table>
<thead>
<tr>
<th>Document Exchanged</th>
<th>Original Document Identifier</th>
<th>Sender/Referenceld</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetInvoice is the first document exchanged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3590 P3590</td>
<td>K9206 P3590</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** A GUID is much longer than the examples above - the structure is shown in Appendix 10.3. Consider the above examples representative of the last five characters of an actual GUID, e.g., 2FAC1234-31F8-11B4-A222-08002B3A0001

Data Area Information

The Invoice Base Schema provides all the content for the DataArea of the two Invoice exchange documents as shown in Table 31:

**Table 33: PurchaseOrder Exchange Pattern**

<table>
<thead>
<tr>
<th>Invoice Exchange Documents</th>
<th>All PurchaseOrder Documents use the PurchaseOrder Base Document (PurchaseOrder.xsd XML Schema)</th>
<th>Synchronous Exchange Patterns will also use a Confirmation document during the exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetInvoice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShowInvoice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A detailed description of all XML declarations used within the DataArea of each Invoice document can be found by referencing the Invoice Base Document located in Section 9.3. A list of the XML declarations contained in this base document is shown in the first column of Table 34. If the XML Base Schema used in the exchange document requires a specific declaration, a capital "R" has been placed in intersecting cell. If the exchange pattern requires the use of a declaration, but this is not enforced by the XML schema, a lower-case "r" is shown.
Implementation Note: Required child-level declarations contained WITHIN optional Parent element hierarchies are considered optional by most XML parsers, UNLESS the optional Parent element IS populated. When an optional Parent element is populated, the schema enforces use of any REQUIRED declarations within the optional Parent’s hierarchy.

**Table 34: Invoice Base Document Declarations**

<table>
<thead>
<tr>
<th>Invoice Document Elements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td></td>
</tr>
<tr>
<td>Currency</td>
<td></td>
</tr>
<tr>
<td>DimensionalUOM</td>
<td></td>
</tr>
<tr>
<td>WeightUOM</td>
<td></td>
</tr>
<tr>
<td>DocumentDateTime</td>
<td></td>
</tr>
<tr>
<td>DocumentIds</td>
<td></td>
</tr>
<tr>
<td>CustomerRFQDocumentId</td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierQuoteDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
</tr>
<tr>
<td>CustomerPurchaseOrderld</td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierSalesOrderld</td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierInvoiceId</td>
<td></td>
</tr>
</tbody>
</table>
### Invoice Document Elements

<table>
<thead>
<tr>
<th>SupplierDocumentId</th>
</tr>
</thead>
<tbody>
<tr>
<td>DocumentReferenceIds</td>
</tr>
<tr>
<td>CustomerRFQDocumentRef</td>
</tr>
<tr>
<td>CustomerDocumentId</td>
</tr>
<tr>
<td>SupplierQuoteDocumentRef</td>
</tr>
<tr>
<td>SupplierDocumentId</td>
</tr>
<tr>
<td>CustomerPODocumentRef</td>
</tr>
<tr>
<td>CustomerDocumentId</td>
</tr>
<tr>
<td>SupplierSalesOrderDocumentRef</td>
</tr>
<tr>
<td>SupplierDocumentId</td>
</tr>
<tr>
<td>SupplierInvoiceDocumentRef</td>
</tr>
<tr>
<td>SupplierDocumentId</td>
</tr>
</tbody>
</table>

### Note

| author |

### BackOrderedInd

### DropShipInd

### TransportationTermCode

| r |

### issuingAgency

| R |

### FreightTerms

| R |

### FreightTerm

| R |

### CommonCarrier

| R |

### freightTermCode

<p>| R |</p>
<table>
<thead>
<tr>
<th>ShippingMethod</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>TransportationMethod</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
</tr>
<tr>
<td>ShippingCharge</td>
<td></td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
</tr>
<tr>
<td>AdditionalChargesCredits</td>
<td></td>
</tr>
</tbody>
</table>

**Invoice Document Elements**

<table>
<thead>
<tr>
<th>AdditionalCharge</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>R</td>
</tr>
<tr>
<td>Total</td>
<td>R</td>
</tr>
</tbody>
</table>

| Rebate | |
| Description | |
| Total | |

| Discount | |
| Description | |
| Total | |

<p>| TotalAmount | |
| PaymentTerms | |
| TermId | R |</p>
<table>
<thead>
<tr>
<th>PaymentMethod</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>BillToParty</td>
<td></td>
</tr>
<tr>
<td>PartyId</td>
<td>R</td>
</tr>
<tr>
<td>LocationCode</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>R</td>
</tr>
<tr>
<td>AddressLine</td>
<td>R</td>
</tr>
<tr>
<td>City</td>
<td>R</td>
</tr>
<tr>
<td>StateOrProvince</td>
<td>R</td>
</tr>
<tr>
<td>PostalCode</td>
<td>R</td>
</tr>
<tr>
<td>Country</td>
<td>R</td>
</tr>
<tr>
<td>County</td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
</tr>
<tr>
<td>ShipToParty</td>
<td>Same as Header/BillToParty</td>
</tr>
<tr>
<td>SoldToParty</td>
<td>Same as Header/BillToParty</td>
</tr>
<tr>
<td>ShipFromParty</td>
<td>Same as Header/BillToParty</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Invoice Document Elements</td>
<td></td>
</tr>
<tr>
<td>HostParty</td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
</tr>
<tr>
<td>RemitToParty</td>
<td></td>
</tr>
<tr>
<td>Same as Header/BillToParty</td>
<td></td>
</tr>
<tr>
<td>UserArea</td>
<td></td>
</tr>
<tr>
<td>Lines</td>
<td></td>
</tr>
<tr>
<td>LineNumber</td>
<td>R</td>
</tr>
<tr>
<td>POLineNumberReference</td>
<td></td>
</tr>
<tr>
<td>POLineDate</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td></td>
</tr>
<tr>
<td>Height</td>
<td></td>
</tr>
<tr>
<td>DocumentIds</td>
<td></td>
</tr>
<tr>
<td>CustomerRFQDocumentId</td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierQuoteDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
</tr>
<tr>
<td>CustomerPurchaseOrderId</td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierSalesOrderId</td>
<td></td>
</tr>
</tbody>
</table>
### Invoice Document Elements

<table>
<thead>
<tr>
<th>Invoice Document Elements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CustomerPODocumentRef</td>
<td></td>
</tr>
<tr>
<td>CustomerDocumentId</td>
<td></td>
</tr>
<tr>
<td>SupplierSalesOrderDocumentRef</td>
<td>SupplierDocumentId</td>
</tr>
<tr>
<td>SupplierInvoiceDocumentRef</td>
<td>SupplierDocumentId</td>
</tr>
<tr>
<td>SupplierDocumentId</td>
<td></td>
</tr>
<tr>
<td>ShippingTrackingId</td>
<td></td>
</tr>
<tr>
<td>BillOfLadingId</td>
<td></td>
</tr>
<tr>
<td>PackingListId</td>
<td></td>
</tr>
<tr>
<td>ItemStatusChanges</td>
<td></td>
</tr>
<tr>
<td>ItemStatusChange</td>
<td>R</td>
</tr>
</tbody>
</table>
# Internet Parts Ordering – Functional Implementation Guide

<table>
<thead>
<tr>
<th>To</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>R</td>
</tr>
</tbody>
</table>

## OrderItem

<table>
<thead>
<tr>
<th>CustomerItemId</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>SupplierItemId</td>
<td></td>
</tr>
<tr>
<td>SupplierCode</td>
<td></td>
</tr>
<tr>
<td>Brand AUTO CARE ASSOCIATIONId</td>
<td></td>
</tr>
<tr>
<td>ManufacturerItemId</td>
<td></td>
</tr>
<tr>
<td>ManufacturerCode</td>
<td></td>
</tr>
<tr>
<td>ManufacturerName</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
</tbody>
</table>

## PartTypes

<table>
<thead>
<tr>
<th>PartType</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCDB</td>
<td>R</td>
</tr>
<tr>
<td>Motive</td>
<td>R</td>
</tr>
<tr>
<td>Quality</td>
<td>R</td>
</tr>
</tbody>
</table>

## NPDCCode

<table>
<thead>
<tr>
<th>Category</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubCategory</td>
<td>R</td>
</tr>
</tbody>
</table>

**Invoice Document Elements**
<table>
<thead>
<tr>
<th>Segment</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>DropShipInd</td>
<td></td>
</tr>
<tr>
<td>BackOrderedInd</td>
<td></td>
</tr>
<tr>
<td>OrderQuantity</td>
<td>R</td>
</tr>
<tr>
<td>uom</td>
<td>R</td>
</tr>
<tr>
<td>BackOrderedQuantity</td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R</td>
</tr>
<tr>
<td>InvoicedQuantity</td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td></td>
</tr>
<tr>
<td>Prices</td>
<td></td>
</tr>
<tr>
<td>Pricing</td>
<td>R</td>
</tr>
<tr>
<td>PriceType</td>
<td>R</td>
</tr>
<tr>
<td>Price</td>
<td>R</td>
</tr>
<tr>
<td>uom</td>
<td>R</td>
</tr>
<tr>
<td>PriceBreak</td>
<td></td>
</tr>
<tr>
<td>uom</td>
<td>R</td>
</tr>
<tr>
<td>ExtendedPrice</td>
<td></td>
</tr>
<tr>
<td>FreightTerms</td>
<td></td>
</tr>
<tr>
<td>FreightTerm</td>
<td>R</td>
</tr>
<tr>
<td>CommonCarrier</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>ShippingMethod</td>
<td>R</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>TransportationMethod</td>
<td>R</td>
</tr>
<tr>
<td>----------------------</td>
<td>--</td>
</tr>
<tr>
<td>freightTermCode</td>
<td>R</td>
</tr>
<tr>
<td>CarrierAccount</td>
<td></td>
</tr>
<tr>
<td>ShippingCharge</td>
<td></td>
</tr>
<tr>
<td>AdditionalChargesCred</td>
<td></td>
</tr>
<tr>
<td>AdditionalCharge</td>
<td>R</td>
</tr>
<tr>
<td>Description</td>
<td>R</td>
</tr>
</tbody>
</table>

**Invoice Document Elements**

<table>
<thead>
<tr>
<th>Total</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebate</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Discount</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>TotalAmount</td>
<td></td>
</tr>
<tr>
<td>PaymentTerms</td>
<td></td>
</tr>
<tr>
<td>TermId</td>
<td></td>
</tr>
<tr>
<td>PaymentMethod</td>
<td></td>
</tr>
<tr>
<td>PromisedShipDate</td>
<td></td>
</tr>
<tr>
<td>Note</td>
<td></td>
</tr>
<tr>
<td>author</td>
<td></td>
</tr>
</tbody>
</table>
BillToParty

- Same as Header/BillToParty

ShipToParty

- Same as Header/BillToParty

ShipFromParty

- Same as Header/BillToParty

UserArea

### Invoice - Base Document Content

**Invoice/Header/**

**Language:** The two-character or three-character Language Code defined in ISO Code Tables 639-1 and 639-2.

**Currency:** The three-letter currency code defined in the ISO 4217 Code Table.

**DimensionalUOM:** The two-character code defined in ANSI Code Table 355 for dimensional measures.

**WeightUOM:** The two-character weight measurement code defined in ANSI Code Table 355.

**DocumentDateTime:** The date and time the document was created, formatted in ISO 8601 extended format of YYYY-MM-DDThh:mm:ss, followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference-fractional seconds may be included.

**DocumentIds/**

**CustomerRFQDocumentId/**

**CustomerDocumentId:** AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

**SupplierQuoteDocumentId/**

**SupplierDocumentId:** AddQuote Document Identifier generated by the Supplier's (Seller's) application.
CustomerPurchaseOrderId/

CustomerDocumentId: ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

SupplierSalesOrderId/

SupplierDocumentId: AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

SupplierInvoiceId/

SupplierDocumentId: Invoice Document Identifier generated by the Supplier's (Seller's) application.

DocumentReferenceIds/

CustomerRFQDocumentRef/

CustomerDocumentId: References the AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

SupplierQuoteDocumentRef/

SupplierDocumentId: References the AddQuote Document Identifier generated by the Supplier's (Seller's) application.

CustomerPODocumentRef/

CustomerDocumentId: References the ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

SupplierSalesOrderDocumentRef/

SupplierDocumentId: References the AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

SupplierInvoiceDocumentRef/

SupplierDocumentId: References the Invoice Document Identifier generated by the Supplier's (Seller's) application.

Note/: Free form text element used to annotate the document or exchange process.

author: Identifies the author of the note.
**BackOrderedInd**: Requested Items may not be available for shipment within the timeframe specified by the Buyer, resulting in a backorder. Buyers may use this indicator to inform the Seller whether they will accept or reject all backordered items for the entire Order. This element will either contain a Boolean value of “1” indicating a backorder is acceptable, or “0” indicating orders for unshipped quantities or items must be cancelled. If this element is not present, a default value of “1” is assumed.

**DropShipInd**: Contains a Boolean value of either “1”, indicating that drop-shipment is requested or “0” indicating that the order may not be drop-shipped. If this field is not present, a default value of “0” should be assumed by the receiving application. Note: a true value of “1” is only valid when the ShipToParty address information is different than the address in BillToParty.

**TransportationTermCode**: If the Buyer provided transportation terms in the RFQ, and the Seller agrees with those terms, the transportation terms from the RFQ should be echoed here. If not, the element contains the Seller's terms. This element contains one of the three-character codes defined in INCOterms 2000, such as EXW (Ex works), FOB (Free on Board), CIF (Cost, Insurance and Freight), DDU (Delivered Duty Unpaid), or CPT (Carriage Paid To).

  - **issuingAgency**: Indicates who developed the Term Code, e.g. ICC” (International Chamber of Commerce) for INCOterms, “UCC” (Uniform Code Council) for EAN-UCC codes.

**FreightTerms/**: Container element for Freight Terms.

  - **FreightTerm/**: Contains elements identifying the carrier and transportation methods.
    - **CommonCarrier/**: Name of the shipping carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.
      - **freightTermCode**: Contains one of the code types defined in the referenced element.
    - **ShippingMethod/**: Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.
      - **freightTermCode**: Contains one of the code types defined in the referenced element.
    - **TransportationMethod/**: A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel.
**freightTermCode:** Contains one of the code types defined in the referenced element.

**CarrierAccount:** Account number used for the transportation carrier, e.g. FedEx, UPS, DHL, Greyhound, Burlington Northern.

**ShippingCharge:** Shipping costs for the order.

**ExtendedPrice:** This element contains the total value of all Line Items, excluding any additional charges or fees such as tax or shipping.

**AdditionalCharges/:** Container element for Additional Charges.

**AdditionalCharge/:** One or more unique charges associated with the purchase or delivery of the Order.

**Description:** Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total:** Total amount of the charge, rebate or credit.

**Rebate/:** One or more rebates associated with the purchase or delivery of the Order.

**Description:** Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total:** Total amount of the charge, rebate or credit.

**Discount/:** One or more discounts associated with the purchase or delivery of the Order.

**Description:** Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total:** Total amount of the charge, rebate or credit.

**TotalAmount:** Contains the total value for the Order, including additional charges, e.g. customization, shipping and handling, or tax.

**PaymentTerms/:** Payment terms and methods.

**TermId:** Payment terms for the order, e.g. “Net 45 days”, “2% 10 net 30”, “10th proximo”, “COD – Money Order only”.

**PaymentMethod:** Specifies a particular payment method required by the Seller, e.g. Cashiers Check, Personal Check.
**BillToParty:** The content of this component describes the entity, organization, or person responsible for paying the invoice.

- **PartyId:** Contains information that represents a business entity that can be used to route a request to a service endpoint.
- **LocationCode:** Code used to identify the location of a party.
- **Name:** The formal or trade name of the entity.
- **AddressLine:** Indicates the multiple lines of an address. The first line is typically a street name and number.
- **City:** The city name.
- **StateOrProvince:** ISO 3166-2 two-letter abbreviation for the state or province to which the invoice should be mailed, e.g. “IL” for Illinois, “QC” for Quebec.
- **PostalCode:** ZIP or postal code for the address.
- **Country:** ISO 3166-1 two-letter code for the country, e.g. “US” for United States, “CA” for Canada.
- **County:** The county for the address.
- **Telephone:** Business contact’s telephone number, formatted as +999 (999) 9999999.

**ShipToParty:** The content of this component describes the entity, organization, or person, to which the Ordered Items will be shipped or delivered. The ShipToParty component structure is identical to Header/BillToParty, and in many cases the information provided here will also match the content in that component, although address and contact information is frequently different for larger organizations. Note that PurchaseOrder does not provision for more than one ShipToParty, as it's assumed every Item in an Order will be delivered to the same address.

**SoldToParty:** The content of this component describes the entity, organization, or person who will take title to the Ordered Items. The SoldToParty component structure is identical to Header/BillToParty, and in many cases the content may also be the same as that component. However, Items requested by larger organizations, such as a retail chain, could be sold to a local store, shipped to a regional warehouse to be included in the daily stock delivery, and billed to the corporate headquarters.
**ShipFromParty**: The content of this component describes the entity, organization, or person who will ship the requested Items. The elements contained in the ShipFromParty component are identical to Header/BillToParty.

**HostParty**: Component describes the entity to which the document should be routed. The elements contained in the HostParty component are identical to Header/BillToParty.

**RemitToParty**: The elements contained in the RemitToParty component are identical to Header/BillToParty.

**UserArea**: Allows the user of IPO to extend the specification in order to exchange additional information which isn't defined in the standard. This UserArea should remain the last element in the Header sequence, prior to the Lines element.

**Invoice/Lines/**

**LineNumber**: Contains a sequential line identifier, beginning with 1 for the first line.

**POLineNumberReference**: Line Number reference from the ProcessPurchaseOrder document.

**POLineDate**: DocumentDateTime taken from the ProcessPurchaseOrder document containing the Line in POLineNumberReference. This element is used with POLineNumberReference.

**Weight**: Gross weight per pack. HDX PCFS uses a 5.3 configuration.

**Length**: Length is the front-to-back Horizontal dimension (of Pack, Layer, Pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Length = front to back.

**Width**: Width is the left-to-right horizontal dimension (of pack, layer, pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Width = left to right.

**Height**: Height is the vertical dimension (of pack, layer, pallet, etc.). Put the product on its natural base, with the graphics reading from left to right from the front. Note: This relates to how the product is merchandised, and it is possible it is packed for distribution in a different orientation. Height = base to top.

**DocumentIds/**
CustomerRFQDocumentId/

**CustomerDocumentId**: AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

SupplierQuoteDocumentId/

**SupplierDocumentId**: AddQuote Document Identifier generated by the Supplier's (Seller's) application.

CustomerPurchaseOrderId/

**CustomerDocumentId**: ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

SupplierSalesOrderId/

**SupplierDocumentId**: AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

SupplierInvoiceId/

**SupplierDocumentId**: Invoice Document Identifier generated by the Supplier's (Seller's) application.

DocumentReferenceIds/

CustomerRFQDocumentRef/

**CustomerDocumentId**: References the AddRequestForQuote Document Identifier generated by the Customer's (Buyer's) application.

SupplierQuoteDocumentRef/

**SupplierDocumentId**: References the AddQuote Document Identifier generated by the Supplier's (Seller's) application.

CustomerPODocumentRef/

**CustomerDocumentId**: References the ProcessPurchaseOrder Document Identifier generated by the Customer's (Buyer's) application.

SupplierSalesOrderDocumentRef/
SupplierDocumentId: References the AcknowledgePurchaseOrder Document Identifier generated by the Supplier's (Seller's) application.

SupplierInvoiceDocumentRef:

SupplierDocumentId: References the Invoice Document Identifier generated by the Supplier's (Seller's) application.

ShippingTrackingId: A unique identifier used to track an individual package that may be part of a larger shipment, e.g. express parcel tracking number, SCC-18, Progressive Number, etc.

BillOfLadingId: Matching the Bill of Lading across the Return Docs allows for Invoice to Advanced Ship Notice comparison. Must be Printed on Packing List.

PackingListId: Matching the Bill of Lading across the Return Docs allows for Invoice to Advanced Ship Notice comparison. Must be Printed on Packing List.

ItemStatusChanges/: Codes used by the Seller when the status of a Line Item changes.

ItemStatusChange/: A single item status change.

To: One of an enumerated list of code values indicating the reason for a change in status.

Description: A list of values for the Change/To Description element.

OrderItem/: A collection of information pertaining to the Item.

CustomerItemld: The Item number known to the Buyer. This may be the same as the Supplier's catalog number, the Customer's SKU or some other product identifier.

SupplierItemld: An Item identifier known to the Supplier. If this is different than a Buyer's identifier, it may be used as a cross-reference to the CustomerItemld.

SupplierCode: Contains a Seller defined product/line code, if it is different than the ManufacturerCode tag value. This value is used in conjunction with the SupplierItemld to be the product designation as defined by the Seller.

BrandAUTO CARE ASSOCIATIONId: Brand identifier found in the AUTO CARE ASSOCIATION maintained Parent/Supplier/Brand Code Registry Table.

ManufacturerItemld: The Item identifier known to the Manufacturer or OEM. May be used as a cross-reference to the CustomerItemld or SupplierItemld.
**ManufacturerCode**: Contains a Buyer/Seller negotiated product/line code. This tag value can be used in conjunction with the CustomerItemIdent and/or the ManufacturerItemIdent tags, as appropriate based upon the agreement between the Buyer and Seller. In addition, this field could be used in conjunction with the SupplierItemIdent, if the SupplierCode tag is not present.

**ManufacturerName**: Contains a free-form text description of the name of the manufacturer and/or the “brand” of the product.

**Description**: The Item description.

**PartTypes**: Container element for Part Types.

  **PartType**: The Seller may provide additional PartType information consisting of PCDB, Motive and Quality codes.

    **PCDB**: ACES PCDB PartType code.

    **Motive**: One of an enumerated list of values specifying the Motive PartType.

    **Quality**: One of an enumerated list of values specifying the Quality of a PartType.

**NPDCodes**: Category code information for the Item, consisting of the Auto Care Association NPD category, subcategory and segment codes.

  **Category**: The Auto Care Association NPD category code for the Item.

  **SubCategory**: The Auto Care Association NPD sub-category code for the Item.

  **Segment**: The Auto Care Association NPD segment code for the Item.

**DropShipInd**: Contains a Boolean value of either "1", indicating that drop-shipment is requested or "0" indicating that the order may not be drop-shipped. If this field is not present, a default value of "0" should be assumed by the receiving application. Note: a true value of "1" is only valid when the ShipToParty/address information is different than the address in BillToParty.

**BackOrderedInd**: Requested Items may not be available for shipment within the timeframe specified by the Buyer, resulting in a backorder. Buyers may use this indicator to inform the Seller whether they will accept or reject all backordered Items for the entire Order. This element will either contain a Boolean value of “1” indicating a backorder is acceptable, or “0” indicating orders for unshipped quantities or Items must be cancelled. If this element is not present, a default value of “1” is assumed.

**OrderQuantity**: Quantity of the Item being ordered.
**uom**: Unit of measure.

**BackOrderedQuantity**: Contains the quantity of the Item that the Seller expects to backorder. If the value in the RFQ BackOrderedInd is "0", and this element is present in the Quote, its value must be zero.

**uom**: Unit of measure.

**InvoicedQuantity**: Quantity for the item invoiced. **uom**: Unit of measure.

**Prices**: Container element for Prices.

**Pricing**: Item pricing by industry PriceType, as defined in the Auto Care Association PIES PriceType Code Table.

**PriceType**: Code value identifying the type of price conveyed- refer to the Auto Care Association PIES PriceType Code Table for complete list of enumerated types.

**Price**: The Item value for the PriceType, as defined in the Auto Care Association PIES Pricing segment.

**uom**: Unit of measure

**PriceBreak**: Incremental unit quantity required of the Item to receive a price break, as defined in the Auto Care Association PIES Pricing segment.

**uom**: Unit of measure.

**ExtendedPrice**: This element contains the total value of all Line Items, excluding any additional charges or fees such as tax or shipping

**FreightTerms**: Container element for Freight Terms.

**FreightTerm**: Describes how the freight cost for a shipment of goods should be billed, e.g. Prepaid, Collect, Third Party, Prepaid and Add, Consignee Billed.

**CommonCarrier**: Name of the shipping carrier for that Freight Term. Examples of acceptable values for the code attribute would include UPS, FED, DHL, US, etc.

**freightTermCode**: Contains one of the code types defined in the referenced element.

**ShippingMethod**: Description of the Shipping Method used for that Freight Term. Examples of acceptable values for the code attribute would include NDE for Next Day Early and 3DY for Three-Day.
**freightTermCode**: Contains one of the code types defined in the referenced element.

**TransportationMethod**: A description of Transportation Method for that Freight Term. Examples of acceptable values for the code attribute would include A for Air, T for Truck/Ground, R for Rail and V for Vessel. **freightTermCode**: Contains one of the code types defined in the referenced element.

**CarrierAccount**: Account number used for the transportation carrier, e.g. FedEx, UPS, DHL, Greyhound, Burlington Northern.

**Shipping Charge**: Shipping costs for the Order.

**AdditionalCharges**: Container element for Additional Charges.

**AdditionalCharge**: One or more unique charges associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Rebate**: One or more rebates associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**Discount**: One or more discounts associated with the purchase or delivery of the Order.

**Description**: Describes a charge, rebate or discount, apart from the cost of an item. Refer to the IPO documentation for details.

**Total**: Total amount of the charge, rebate or credit.

**TotalAmount**: Contains the total value for the Line Item, including additional charges, e.g. customization, shipping and handling or tax.

**PaymentTerms**: Payment terms and methods.

**TermId**: Payment terms for the Order, e.g. “Net 45 days”, “2% 10 net 30”, “10th proximo”, “COD – Money Order only”.

www.autocare.org  |  www.autocarevip.com  |  technology@autocare.org
200
**PaymentMethod**: Specifies a particular payment method, e.g. Cashiers Check, Personal Check.

**PromisedShipDate**: Contains the date which the Seller expects to ship the Order, i.e. the departure date from the ship-from location. Content is formatted in the ISO 8601 extended format of YYYY-MMDDThh:mm:ss followed by the difference between the local time and Universal Time represented as ±hh:mm, or Z if there is no difference.

**Note**: Free form text element used to annotate the document or exchange process.

**author**: Identifies the author of the note.

**BillToParty**: The content of this component describes the entity, organization, or person responsible for paying the invoice. Information provided here overrides any Header/BillToParty information for this Line Item.

**ShipToParty**: The content of this component describes the entity, organization, or person, to which the Ordered Items will be shipped or delivered. The ShipToParty component structure is identical to BillToParty, and in many cases the information provided here will also match the content in that component, although address and contact information is frequently different for larger organizations. Information provided here overrides any Header/ShipToParty information for this Line Item.

**ShipFromParty**: The content of this component describes the entity, organization, or person who will ship the requested Item. The ShipFromParty component structure is identical to Header/BillToParty. Information provided here overrides any Header/ShipFromParty information for this Line Item.

**UserArea**: Allows the user of IPO to extend the specification in order to exchange additional information which isn't defined in the standard. This UserArea should remain the last element in the sequence.

### Invoice Exchange Documents

Up to three documents may be used in an Invoice exchange – GetInvoice, ShowInvoice and a Confirmation Document.

**GetInvoice Exchange Document**

The GetShipment document is used whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. Refer to Example 18.

**Example 18: GetInvoice**

**ShowInvoice Exchange Document**
The ShowInvoice document is used whenever trading partners have agreed to use the synchronous communication with delayed response exchange pattern – refer to Section 4.3 for guidance. Refer to Example 19.

Example 19: ShowInvoice

Confirmation Exchange Document

A Confirmation document is used in all asynchronous Shipment exchange patterns, as well as the synchronous communication with delayed response exchange - refer to Section 4.3 for guidance. Section 5 provides a detailed description of the Confirmation document and its use.
Appendices

Units of Measure

IPO recommends that values for `uom` attributes, and for fields that otherwise specify a unit of measure, conform to ANSI ASC X12 Data Element 355, Unit or Basis for Measurement Code. Table 35 lists allowable values, in alphabetical order by description.

Note that the `uom` attribute is of data type NM_TOKEN, meaning generally that its value may contain only letters, digits, and a limited set of punctuation marks (hyphen, underscore, period, and colon). Spaces and slashes, among other characters, are not allowed. A full explanation of this data type may be found at [http://www.w3.org/TR/xmlschema-2/#NM_TOKEN](http://www.w3.org/TR/xmlschema-2/#NM_TOKEN).

**Table 35: X12 Unit of Measure Codes**

<table>
<thead>
<tr>
<th>Description (DoD Nomenclature)</th>
<th>X12 Code</th>
<th>Description (DoD Nomenclature)</th>
<th>X12 Code</th>
<th>Description (DoD Nomenclature)</th>
<th>X12 Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampoule</td>
<td>AM</td>
<td>Fifty</td>
<td>Q4</td>
<td>Pint</td>
<td>PT</td>
</tr>
<tr>
<td>Assembly</td>
<td>AY</td>
<td>Five</td>
<td>P5</td>
<td>Plate</td>
<td>PP</td>
</tr>
<tr>
<td>Assortment</td>
<td>AS</td>
<td>Fluid Ounces</td>
<td>FO</td>
<td>Pound</td>
<td>LB</td>
</tr>
<tr>
<td>Bag</td>
<td>BG</td>
<td>Foot</td>
<td>FT</td>
<td>Pounds per Cubic Inch</td>
<td>LA</td>
</tr>
<tr>
<td>Bale</td>
<td>BA</td>
<td>Four Pack</td>
<td>P4</td>
<td>Quart</td>
<td>QT</td>
</tr>
<tr>
<td>Ball</td>
<td>AA</td>
<td>Gallon</td>
<td>GA</td>
<td>Ration</td>
<td>13</td>
</tr>
<tr>
<td>Bar</td>
<td>BI</td>
<td>Gram</td>
<td>GR</td>
<td>Ream</td>
<td>RM</td>
</tr>
<tr>
<td>Barge</td>
<td>NB</td>
<td>Gross</td>
<td>GS</td>
<td>Reel</td>
<td>RE</td>
</tr>
<tr>
<td>Barrel</td>
<td>BR</td>
<td>Group</td>
<td>10</td>
<td>Roll</td>
<td>RL</td>
</tr>
<tr>
<td>Belt</td>
<td>BT</td>
<td>Hank</td>
<td>HA</td>
<td>Set</td>
<td>ST</td>
</tr>
<tr>
<td>Board Foot</td>
<td>BF</td>
<td>Hundred</td>
<td>HU</td>
<td>Sheet</td>
<td>SH</td>
</tr>
<tr>
<td>Bolt</td>
<td>BM</td>
<td>Hundred Boxes</td>
<td>HB</td>
<td>Short Ton (2000 lbs)</td>
<td>NS</td>
</tr>
<tr>
<td>Book</td>
<td>BK</td>
<td>Hundred Count</td>
<td>HC</td>
<td>Shot</td>
<td>14</td>
</tr>
<tr>
<td>Bottle</td>
<td>BO</td>
<td>Hundred Feet</td>
<td>HF</td>
<td>Six Pack</td>
<td>P6</td>
</tr>
<tr>
<td>Box</td>
<td>BX</td>
<td>Hundred Kilograms</td>
<td>KK</td>
<td>Skein</td>
<td>SW</td>
</tr>
<tr>
<td>Bundle</td>
<td>BD</td>
<td>Imperial Gallon</td>
<td>GI</td>
<td>Skid</td>
<td>SV</td>
</tr>
<tr>
<td>Cake</td>
<td>KA</td>
<td>Inch</td>
<td>IN</td>
<td>Sleeve</td>
<td>SL</td>
</tr>
<tr>
<td>Can</td>
<td>CN</td>
<td>Jar</td>
<td>JR</td>
<td>Spool</td>
<td>SO</td>
</tr>
<tr>
<td>Car</td>
<td>NC</td>
<td>Keg</td>
<td>KE</td>
<td>Square Foot</td>
<td>SF</td>
</tr>
</tbody>
</table>
### Common language and region codes

IPO recommends that values for `lang` attributes conform to ISO 639-2 and ISO 3166-1. Table 36 and Table 37 list some of the allowable values, in alphabetical order by description. Language codes customarily are written in lower-case letters, region codes in upper-case.

**Table 36: ISO 639-2 Language Codes**

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
<th>Language</th>
<th>Code</th>
<th>Language</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic</td>
<td>ara</td>
<td>Chinese</td>
<td>chi/zho</td>
<td>Danish</td>
<td>dan</td>
</tr>
<tr>
<td>Dutch</td>
<td>dut/nld</td>
<td>English</td>
<td>eng</td>
<td>Finnish</td>
<td>fin</td>
</tr>
</tbody>
</table>
Complete code lists are available through:


Globally unique identifiers

BODId fields must contain a Globally Unique Identifier (GUID) that makes each BOD instance uniquely identifiable. GUID is Microsoft’s implementation of the Open Software Foundation’s UUID (Universally Unique IDentifier). Both GUIDs and UUIDs are 16-octet numbers written in hexadecimal, and are divided by hyphens into five segments – four octets, three groups of two octets, and one group of six octets – so that a correctly formed UUID looks like:

2FAC1234-31F8-11B4-A222-08002B34C003

UUIDs are generated from a combination of timestamp, version number, clock sequence, and a unique node identifier, using the following format:
Table 38: Universal Identifiers

<table>
<thead>
<tr>
<th>Field (Data type)</th>
<th>Octet #</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>time_low (unsigned long)</td>
<td>0-3</td>
<td>The low field of the timestamp.</td>
</tr>
<tr>
<td>time_mid (unsigned short)</td>
<td>4-5</td>
<td>The middle field of the timestamp.</td>
</tr>
<tr>
<td>time_hi_and_version (unsigned short)</td>
<td>6-7</td>
<td>The high field of the timestamp multiplexed with the version number.</td>
</tr>
<tr>
<td>clock_seq_hi_and_reserved</td>
<td>8</td>
<td>The high field of the clock sequence multiplexed with the variant.</td>
</tr>
<tr>
<td>clock_seq_low (unsigned small)</td>
<td>9</td>
<td>The low field of the clock sequence.</td>
</tr>
<tr>
<td>node (character)</td>
<td>10-15</td>
<td>The spatially unique node identifier.</td>
</tr>
</tbody>
</table>

The timestamp is a 60-bit value, represented by Coordinated Universal Time (UTC) as a count of 100 nanosecond intervals since 00:00:00.00, 15 October 1582. The version number, for IPO purposes, is 1. Several rules govern the determination of clock sequence; generally, clock sequence is either initialized to a random value that is not correlated with the node identifier or to a value that is stored in ROM that cannot be removed from the system. The node field contains the 48-bit IEEE address of the system. A standard algorithm for creating UUIDs may be found at:


IPO v2 Synchronous Exchange Test Cases

Table 39: IPO v2 Synchronous Exchange Test Cases

<table>
<thead>
<tr>
<th>Add Request for Quote</th>
<th>Acknowledge Purchase Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddRequestForQuote-Alternates</td>
<td>AcknowledgePurchaseOrder-Insufficient</td>
</tr>
<tr>
<td>AddRequestForQuote-Core</td>
<td>AcknowledgePurchaseOrder-InterchangeMultiple</td>
</tr>
<tr>
<td>AddRequestForQuote-Insufficient</td>
<td>AcknowledgePurchaseOrder-InterchangeSingle</td>
</tr>
<tr>
<td>AddRequestForQuote-InterchangeMultiple</td>
<td>AcknowledgePurchaseOrder-Multiple</td>
</tr>
<tr>
<td>AddRequestForQuote-InterchangeSingle</td>
<td>AcknowledgePurchaseOrder-NotFound</td>
</tr>
<tr>
<td>AddRequestForQuote-List</td>
<td>AcknowledgePurchaseOrder-Single</td>
</tr>
<tr>
<td>AddRequestForQuote-Maximum</td>
<td>AcknowledgePurchaseOrder-Zero</td>
</tr>
<tr>
<td>AddRequestForQuote-Multiple</td>
<td>Process Purchase Order</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>AddRequestForQuote-MultipleWithFreight</td>
<td>ProcessPurchaseOrder-Insufficient</td>
</tr>
<tr>
<td>AddRequestForQuote-NotFound</td>
<td>ProcessPurchaseOrder-InterchangeMultiple</td>
</tr>
<tr>
<td>AddRequestForQuote-Single</td>
<td>ProcessPurchaseOrder-InterchangeSingle</td>
</tr>
<tr>
<td>AddRequestForQuote-SingleWithFreight</td>
<td>ProcessPurchaseOrder-Multiple</td>
</tr>
<tr>
<td>AddRequestForQuote-Supercession</td>
<td>ProcessPurchaseOrder-NotFound</td>
</tr>
<tr>
<td>AddRequestForQuote-Zero</td>
<td>ProcessPurchaseOrder-Single</td>
</tr>
<tr>
<td><strong>Add Quote</strong></td>
<td><strong>Get Shipment</strong></td>
</tr>
<tr>
<td>AddQuote-Alternates</td>
<td>GetShipment-LineCancel</td>
</tr>
<tr>
<td>AddQuote-Core</td>
<td>GetShipment-Multiple</td>
</tr>
<tr>
<td>AddQuote-Insufficient</td>
<td>GetShipment-NotShippedYet</td>
</tr>
<tr>
<td>AddQuote-InterchangeMultiple</td>
<td>GetShipment-ShortShip</td>
</tr>
<tr>
<td>AddQuote-InterchangeSingle</td>
<td>GetShipment-Single</td>
</tr>
<tr>
<td>AddQuote-List</td>
<td>GetShipment-SingleMultiLine</td>
</tr>
<tr>
<td>AddQuote-Multiple</td>
<td>Show Shipment</td>
</tr>
<tr>
<td>AddQuote-MultipleWithFreight</td>
<td>ShowShipment-LineCancel</td>
</tr>
<tr>
<td>AddQuote-NotFound</td>
<td>ShowShipment-Multiple</td>
</tr>
<tr>
<td>AddQuote-Single</td>
<td>ShowShipment-NotShippedYet</td>
</tr>
<tr>
<td>AddQuote-SingleWithFreight</td>
<td>ShowShipment-ShortShip</td>
</tr>
<tr>
<td>AddQuote-Supercession</td>
<td>ShowShipment-Single</td>
</tr>
<tr>
<td>AddQuote-Zero</td>
<td>ShowShipment-SingleMultiLine</td>
</tr>
</tbody>
</table>