UPS OnLine® Tools Shipping XML Tool Developers Guide

20 December 2007

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Important Information

UPS OnLine Tools Shipping Tool:

Your development of an application using the UPS OnLine Tools Shipping Tool is governed by the UPS Technology Agreement or UPS Customer Technology Agreement you entered into with UPS. The following are key legal requirements from these agreements for the UPS OnLine Tools Shipping Tool. For more information on all requirements for the UPS OnLine Tools Shipping Tool, please refer to the UPS Technology Agreement or the Customer Technology Agreement.

Key Legal Requirements for UPS OnLine Tools Shipping Tool:

Permitted Territories. This document can only be used in the countries listed in Exhibit C of the UPS Technology Agreement or UPS Customer Technology Agreement.

Use. The application must not be designed to allow distribution of information received through the UPS OnLine Tools Shipping Tool to third parties, other than to persons having a bona fide interest in such information (e.g., the shipper, consignee or the third party payer).

UPS Account. You must design your application to only provide a user access to the UPS OnLine Tools Shipping Tool if the user has a UPS Account. Once the user provides UPS Account credentials, all tendered shipments manifested through the UPS OnLine Tools Shipping Tool must be billed to (1) Your UPS Account; or (2) a valid credit card account acceptable to UPS; or (3) a UPS account assigned by UPS to the consignee (this payment method also known as Freight Collect Billing); or (4) a UPS account assigned by UPS to a third party who has authorized You to use such UPS account for a tendered shipment (this payment method also known as Third Party Billing).

Consent to Use of UPS Mark.

- All screens or forms generated by your application including information received through the UPS OnLine Tools Shipping Tool must include (1) the UPS Mark positioned in reasonable proximity to the Information and of an appropriate size to readily identify the source of the Information as UPS and (2) the following language at the bottom of every screen that displays the UPS Mark: "UPS, the UPS brand mark, and the Color Brown are trademarks of United Parcel Service of America, Inc. All Rights Reserved". Except as set forth in the preceding sentence, you have no right to use the UPS Mark without the prior written approval of UPS.

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- The UPS Mark may not be combined with any other symbols, including words, logos, icons, graphics, photos, slogans, numbers or other design elements. A minimum amount of empty space must surround the UPS Mark separating it from any other object, such as type, photography, borders, edges, etc. The required area of empty space around the UPS Mark must be 1/3x, where x equals the height of the UPS Mark.

Copyright and Proprietary Notices. You must include in your application and any POD Letters you prepare a prominent reproduction of UPS's copyright and proprietary notices in a form and format specified by UPS (See Copyright Section of this document).

Display of Information. The application must not display information concerning any other provider of shipping services or such other shipping services on any page, whether comprising one or more frames, displaying information your application receives from the UPS OnLine Tools Shipping Tool. Your application must present all data within each field received through the UPS OnLine Tools Shipping Tool without amendment, deletion or modification of any type.

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Table of Contents

Important Information **3**

Welcome to UPS OnLine® Tools **8**

How to Use this Guide 8

What's New for January 2008 8

Required Steps for Integrating with UPS OnLine Tools **10**

Planning Your Applications **11**

OnLine Tools Applications 11

Licensing the UPS OnLine Tools 12
Branding Requirements 12

Developing Client Applications for OnLine Tools 13
Microsoft Visual Studio 13
Java Standard Edition and Enterprise Edition 13
Open Source 13

Getting Technical Support 14
Within the United States 14
Outside of the United States 14

Testing and Deploying Applications 15

UPS Label Certification 15

Keeping Up-to-Date 16

UPS OnLine Tools Technologies **17**

Hypertext Transfer Protocol and Secure Sockets Layer 17

Working with HTTP and SSL in Application Programs 18
Microsoft Visual Studio 19
Java Standard Edition and Enterprise Edition 19
Open Source 20

Extensible Markup Language (XML) 20

Working with XML in Application Programs 22
Microsoft Visual Studio 23
Java Standard Edition and Enterprise Edition 24
Open Source 25

Understanding UPS OnLine Tools Shipping Services **26**

What Shipping Services Can Do 26
Shipments 26
Cancellations (Voids) 26

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Returns....26
How Shipping Services Work....27
Forward and Return Shipments....27
Cancellations (Voids)....28

Shipping Reference....29

Describing OnLine Tools Messages....29
Authenticating Client Applications....30
AccessRequest....30
Forward Shipments....30
(Forward) ShipmentConfirmRequest....30
(Forward) ShipmentConfirmResponse....41
(Forward) ShipmentAcceptRequest....42
(Forward) ShipmentAcceptResponse....43
Return Shipments....47
(Return)Shipment Confirm Request....47
(Return) Shipment Confirm Response....55
(Return) ShipmentAcceptRequest....57
(Return) ShipmentAcceptResponse....58
Cancelling Shipments....60
VoidShipmentRequest....60
VoidShipmentResponse....61
International Forms....62
Shipment Confirm International Forms....63
Error Codes....68

Customer Integration Environment....83

Negotiated Rates....83
Shipping....83
Verifying Shipping Rates....83
System Availability....84
Server Availability Check....84

Service Name: ShipConfirm Remote User: null Server Port: 443 Server Name: wwwcie.ups.com Servlet Path: /ShipConfirm....84

Appendix A: Sample Shipping and Return Labels....85

Appendix B: Shipping and Tracking Numbers for Void Testing....87

Appendix C: UPS Service Codes....89

Appendix D: Reference Number Codes....91

Appendix E: Country Codes....92

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Appendix F: Currency Codes 97

Appendix G: Export License Exception Codes 104

Appendix H: International Forms Preference Criteria 105

Appendix I: Countries that Accept Paperless Invoices 107

Index 109

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Welcome to UPS OnLine® Tools

Welcome to the UPS OnLine Tools Developers Guide. This guide provides the information you need to begin using UPS OnLine Tools.

The UPS OnLine Tools offer a fast and convenient way to access UPS service information using the Internet. With these tools, UPS lets you easily incorporate UPS technology in your own applications or your own web site. Your users—running your applications or visiting your web site—can have up-to-the-minute access to UPS services.

How to Use this Guide

If you are an experienced developer, you can begin developing applications quickly after reviewing “Required Steps for Integrating with UPS OnLine Tools” for a brief overview of the tools.

If you would like a more step-by-step guide to developing and deploying UPS OnLine Tools, “Planning Your Applications” provides advice and describes options for developing and deploying applications and web sites that use UPS OnLine Tools.

The "UPS OnLine Tools Technologies" section explains key technologies on which the UPS OnLine Tools rely. That section also includes hints for using those technologies in various software development environments.

If you would like to learn more about what UPS OnLine Tools can do for your applications, “Understanding UPS OnLine Tools Shipping Services” explains the services that those tools offer.

For a complete technical reference to the OnLine Tools, “Shipping Reference” includes a complete programming reference.

Additional material, including reference tables and lists, may be found in the appendices.

What's New for January 2008

The .dtk Developer’s Kit now contains a Tabular Interface Specification representing the request elements and response elements in a columnar format. Some additional descriptive clarifications are available in the Tabular Interface Specification.

Also, Sample request and response XML documents can be found in the .dtk Developer’s Kit.

New functionality for January 2008:

- “Hundredweight” warning messages are now suppressed.
- The currency code abbreviation for Russia is now the Ruble (RUB). (Page 101.)

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- OnCallPickup is now available for Germany origin shipments.
- Large Package is now available for Canada domestic shipments.
- Declared Value Type Code and Description (InsuredValue/Type/Code, InsuredValue/Type/Description) are now available at the package level. (See page 37).
- The Shipper can select to pay for Declared Value even when the Freight is paid by the Consignee or a third party.
- A new printer type (ZPL) is available for Zebra printers.
- New rules for Credit Card Validation require Security Code for validation. The SecurityCode element remains optional, and, if not present, CreditCard validation will fail.
- Multipiece domestic and international returns are now supported.
- Additional return origin countries are supported. (See Appendix E page 92)
- For Return Shipments the country codes must meet one of the following mutually exclusive conditions:
  - **Alternative One:** At least two of the following country codes must be the same: (ShipTo, ShipFrom, and Shipper)
  - **Alternative Two:** None of the following country codes are the same (ShipTo, ShipFrom, and Shipper) …and all country codes ARE members of the EU.
  - **Alternative Three:** None of the following country codes are the same(ShipTo, ShipFrom, and Shipper)... and at least one of the country codes is not a member of the EU. Note: The shipper must have Third Country contract service:
- New error codes:
  - 121536 (See page 77)
  - 121537 (see page 77)
  - 121538 (see page 77)
  - 121539 (see page 77)
  - 129059 (see page 82)
  - 129090 (see page 82)

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Required Steps for Integrating with UPS OnLine Tools

1. Review the UPS Technology Agreement available at www.ups.com. This agreement requires that you follow certain procedures and practices in using UPS OnLine Tools.
2. Develop applications that make use of standard HTTP communications protocols, SSL security, and XML-based document representations.
3. Test your application and/or web site using the designated UPS staging environment.
4. If you are a UPS Ready developer, review your application with UPS.
5. Obtain UPS Label Certification for your application. (If you are a new customer or if you haven't previously done so.
6. Deploy your application for your customers.

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Planning Your Applications

Planning is a key part of any successful development activity, and UPS OnLine Tools applications are no exception. This section helps that planning by describing the important activities of any UPS OnLine Tools application project. It provides an overview of the steps required to develop applications, and it describes key factors and choices necessary to deploy those applications.

OnLine Tools Applications

Many different types of applications can take advantage of UPS OnLine Tools. Those application types include dedicated desktop applications, databases, web applications, and documents. The following figures illustrate some of the possibilities for applications using UPS OnLine Tools. The only essential requirement for all of these applications is that they must have access to the Internet.

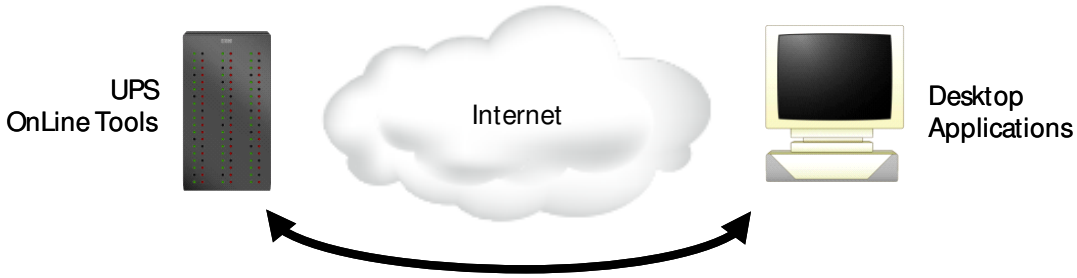

Figure 1: Dedicated applications that users run on their desktops can access UPS OnLine Tools.

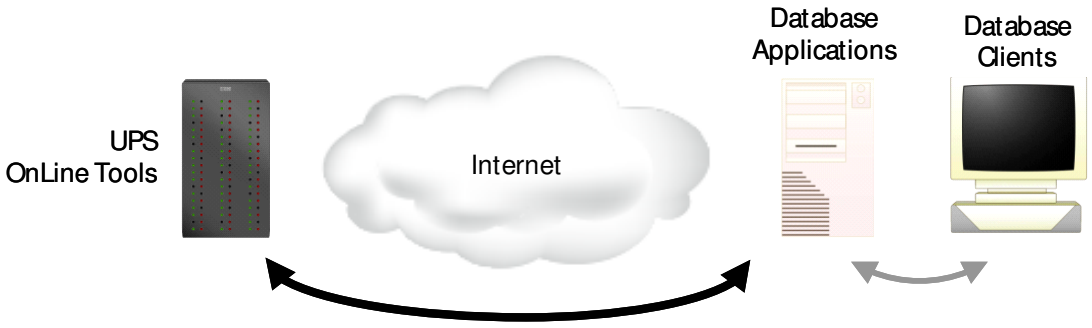

Figure 2: Database applications can access UPS OnLine Tools and return information to their clients.

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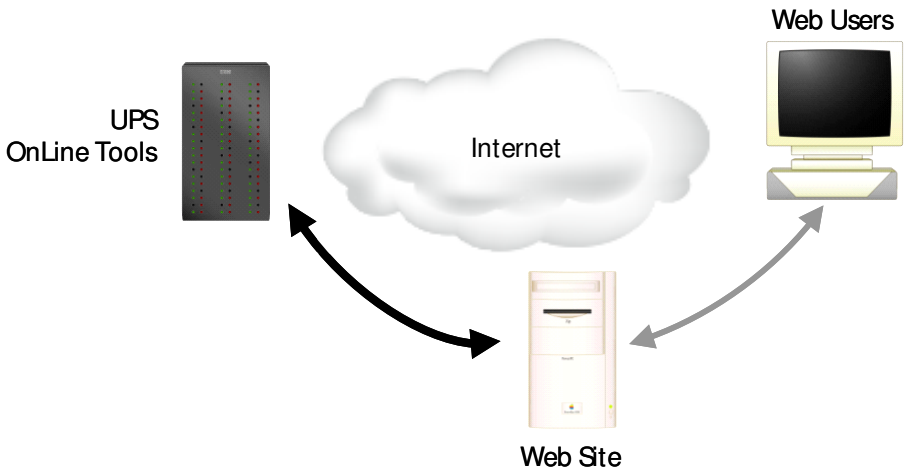

Figure 3: Web sites can access UPS OnLine Tools and return information to users' web browsers.

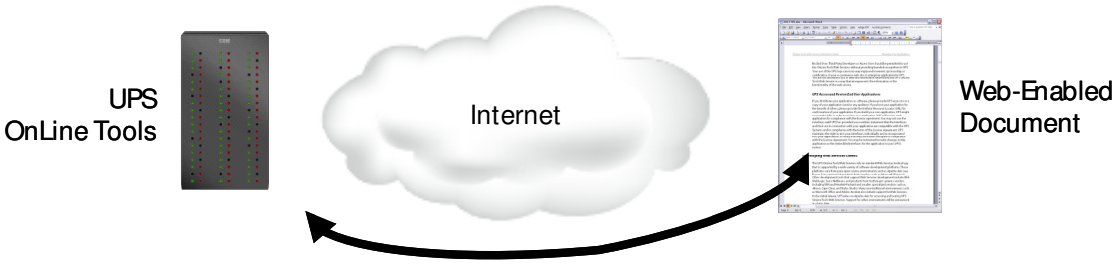

Figure 4: Non-traditional applications such as Microsoft Office or Adobe Acrobat documents can use UPS OnLine Tools to automatically update their content.

The UPS OnLine Tools can be implemented withal of these types of applications and many others. Virtually any software that needs instant, up-to-date access to UPS services can take advantage of UPS OnLine Tools.

Licensing the UPS OnLine Tools

As part of the UPS Technology Agreement, users of the tools have certain obligations that are spelled out within the service agreement and its exhibits. Regardless of the manner in which the UPS OnLine Tools are integrated into your specific e-commerce web site or enterprise application, you must adhere to appropriate usage requirements.

Branding Requirements

UPS should receive attribution and branding in all applications (including websites and software applications) that use the OnLine Tools. No End

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User, Third Party Developer or Access User should be permitted to use the OnLine Tools without providing branded recognition to UPS. Your use of the UPS logo can in no way imply endorsement, sponsorship or certification of your e-commerce web site or enterprise application by UPS. You are not allowed to use or alter the information returned by the UPS OnLine Tools in a way that misrepresents the information or the functionality of the service.

Developing Client Applications for OnLine Tools

When you develop software that uses the UPS OnLine Tools, you are building a client application. Because the UPS OnLine Tools rely on standard Internet-based technology, you can develop those applications using a wide variety of software development platforms, including Microsoft's Visual Studio, the Java Standard Edition and Enterprise Edition distributions, and many open source projects. This section introduces important technologies available in each of these development environments. Later sections of this document include more details on using each platform. Look for the icons in the left margin, which identify information relevant to a particular development environment.

Microsoft Visual Studio

Visual Studio

Developers using the Microsoft Visual Studio environment can rely on the Microsoft XML Core Services (MSXML) for interacting with UPS OnLine Tools. Those services include functions to help applications create requests for and interpret responses, and they include functions to manage the communications between applications and UPS.

Java Standard Edition and Enterprise Edition

Java

Java developers can find all the classes they need for UPS OnLine Tools in the Java Standard Edition and Enterprise Edition distributions. The URL class in the java.net package provides the functions required for communication with UPS servers, and the Java API for XML Processing (JAXP) services let programs create requests and interpret responses from UPS.

Open Source

Open Source

There are a number of open source efforts that include technology useful for creating OnLine Tools client applications; open source developers may find two particular projects to be especially helpful. The libcurl project is a library of functions that can manage the communications with UPS servers. For creating requests and interpreting responses, the xerces project provides essential functions in a variety of software languages.

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Getting Technical Support

UPS provides technical support for developers who are using the UPS OnLine Tools Web Services. To get in touch with a UPS technical support engineer, fill out the technical support request form on the UPS web site.

Within the United States

Effective July 2007, there is a phone number for External Customer Technology Support (ECTS): 1-877-289-6420 6420 for customers who have completed testing in the Customer Integration Environment and are ready to process live shipments..

For developers in the United States, the request form may be found by selecting “Contact UPS” from the www.myups.com web site, or from www.ups.com from the steps below.

1. Navigate to the UPS website http://www.ups.com.
2. Select a language, (ex. United States – English).
3. Log into www.ups.com with your User ID and Password.
4. Click the “Business Solutions” tab.
5. Click “UPS OnLine Tools” , and then click “Support” on the left-hand navigation window.
6. Click the link for technical support.
7. Complete the e-mail form. Please explain details about errors that are being returned, and under what circumstances.

Outside of the United States

Developers outside the United States can find the technical support request in the OnLine Tools page within the Business Solutions section of their country's UPS web site.

1. Navigate to the UPS website http://www.ups.com.
2. Select your country’s home page and language (ex. United States – English).
3. Click “UPS OnLine Tools”, on the left navigational pane.
4. Click the “Business Solutions” tab.
5. Click “Support,” on the left navigational pane.
6. Select “Technical Support Question”.

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7. Complete the e-mail form. Please explain details about errors that are being returned, and under what circumstances.

For more information or assistance with UPS technical support, please contact your UPS OnLine Tools representative.

Testing and Deploying Applications

UPS maintains a special environment to support testing and staging of applications that rely on UPS OnLine Tools. This environment is called the Customer Integration Environment (CIE) and allows developers test and debug their applications by simulating transactions with UPS. The CIE site responds to requests just like the UPS production environment; however, it does not initiate actual UPS business services.

For example, if you send a shipping request to the UPS production site, a UPS driver may show up at your location expecting to pick up a package (and expecting payment for the service.) Sending the shipping request to CIE will avoid this problem.

UPS Label Certification

UPS requires that customers pass a Certification process prior to shipping actual (billable) packages. The Certification Process is as follows:

1. Ship five shipments in the Customer Integration Environment (CIE). These shipments must be valid shipments but may contain any combination of origins, destinations and services. At least one of these tests must produce a High Value Report by including a shipment with an InsuredValue greater than $999.
2. Void the four UPS-defined “Void” test cases in CIE.
3. If you are using a Browser, e-mail the following 39 files along with your UPS OnLine “Developer’s Key” to uoltects@ups.com:
    - The requests and responses of the ShipConfirm and ShipAccept XML documents from all five shipments (20 files).
    - The resulting GIF images of the label from all five shipments (5 files).
    - The resulting GIF images of the High Value Report for at least one shipment (1 file).
    - The HTML pages containing the scaling information for the label from all five shipments (5 files).
    - The requests and responses of all the Void XML documents (8 files).

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4. If you are printing labels via a Thermal Printer, the labels must be sent to UPS via a provided label from the Tool support group. Include a High Value Report for at least one shipment with the thermal labels. Email the following 28 files along with your UPS OnLine "Developer's Key" to uoltects@ups.com:
    - The requests and responses of the ShipConfirm and ShipAccept XML documents from all five shipments (20 files).
    - The requests and responses of all the Void XML documents (8 files).
5. UPS will contact you within 2 business days to inform you of your approval status. Once approved, UPS will provide you with the Production URL.

Certification for third parties is described in the Product Provider Testing Guide.

Note: UPS reserves the right to revoke shipping privileges from any customers who fail to abide by the Certification Requirements outlined above.

Keeping Up-to-Date

As UPS adds new services and features, UPS OnLine Tools will evolve, offering more features and service benefits. Once you register to use UPS OnLine Tools, UPS will notify you by e-mail of updates and changes to the OnLine Tools. It is essential that an accurate e-mail address for your company be maintained. In addition, UPS recommends that you complete the secondary contact information to ensure that your organization receives the latest updates.

You should update your profile when changes occur or responsibilities for the OnLine Tools shift within your company. You can also return to the UPS Business Solutions area of ups.com for the latest updated information about UPS OnLine Tools.

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UPS OnLine Tools Technologies

The foundation technologies for UPS OnLine Tools are the same underlying technologies in use on the Internet today. They include the Hypertext Transfer Protocol (HTTP) with Secure Sockets Layer (SSL) security and the Extensible Markup Language (XML). Because these technologies are critical to the Internet, most software development tools provide many powerful features that make it easy for application programs to use them. This section provides a quick introduction to the technologies and to the tools that can support them.

Hypertext Transfer Protocol and Secure Sockets Layer

Today's Internet supports a wide variety of applications including email, instant messaging, web browsing, and voice communications. All of these applications have a well-defined set of rules that determines how they communicate. Those rules are known as *protocols*. As an Internet application themselves, the UPS OnLine tools also rely on protocols to set the rules for their communications. The primary protocol for UPS OnLine Tools is the hypertext transfer protocol, or HTTP.

HTTP is a relatively simple protocol. An application that wants to use an OnLine Tool acts as an HTTP client. It sends its request to UPS as part of an HTTP POST message. UPS servers reply to each request using an HTTP response message.

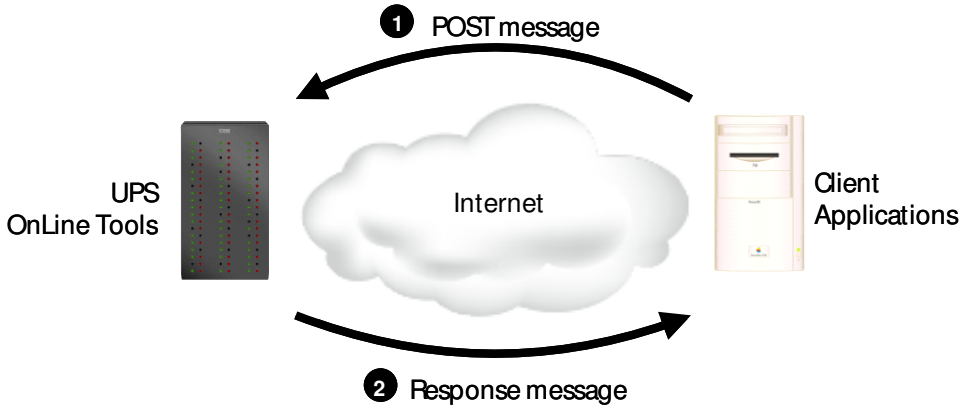

Figure 5. UPS OnLine Tools accept requests from client applications in HTTP POST messages and reply to the requests with HTTP responses.

As part of the POST message, client applications indicate the type of content the message contains using an HTTP Content-Type header. For UPS OnLine Tools, that content type should be application/x-www-form-urlencoded. (Presently, Version 1.1 is supported)

In many cases the UPS OnLine tools exchange information that should be kept private. To protect confidential information, the UPS OnLine Tools rely on the Secure Sockets Layer (SSL) protocol in addition to HTTP. When two systems communicate using SSL, the protocol creates a

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secure channel between them, and it encrypts all information that they exchange using this channel. The SSL protocol that UPS OnLine Tools use is the same protocol used to secure millions of on-line purchases on the web.

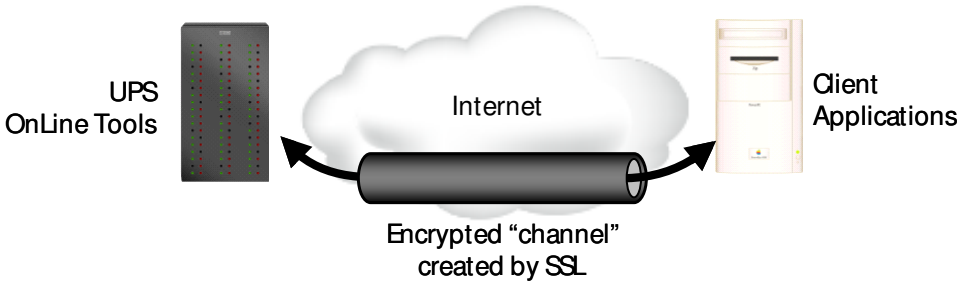

Figure 6: SSL creates a secure channel across a network and protects confidential communications using that channel.

Working with HTTP and SSL in Application Programs

UPS OnLine Tools are not the only Internet services that rely on the HTTP and SSL protocols. Both protocols, in fact, were originally developed for web browsing, and they provide the foundation for the majority of Internet applications. Because HTTP and SSL are so common, software development tools make using these protocols very simple.

Because HTTP and SSL are commonly used for web browsing, software development tools often rely on the same notation and abbreviations as standard web browsers. In particular, most tools identify a specific service (such as a UPS OnLine Tool) using a Uniform Resource Locator (URL). URLs begin with an abbreviation of the communication protocol. For UPS OnLine Tools that abbreviation will always be "https" to indicate HTTP and SSL. The protocol abbreviation is followed by a colon, two slashes, and the name of a server. Additional information about the specific service can follow the server name; it is written like the path to a file in a directory, with slashes separating individual folders. Figure 7 shows how a URL combines these individual components.

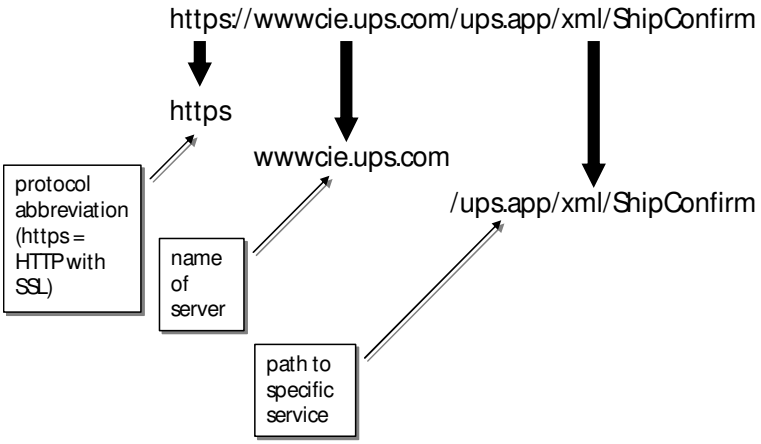

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Figure 7. URLs identify communication protocols, servers, and specific services.

The subsections that follow provide brief introductions to using HTTP and SSL with various software development tools, including Microsoft Visual Studio, Java Standard and Enterprise Edition, and popular open source environments.

Microsoft Visual Studio

Visual Studio

The Microsoft Visual Studio environment includes many tools, classes, and libraries that simplify the use of HTTP and SSL protocols. A very convenient set of tools are included in the Microsoft XML Core Services (MSXML). The following code fragment shows how a Visual Basic program can send a request and retrieve the response. To keep the example as simple as possible, no exception handling is included in the figure. Production software should, of course, appropriately handle all exceptions.

```
' create the object that manages the communication
Dim oXMLHttp As XMLHTTP
Set oXMLHttp = New XMLHTTP

' prepare the HTTP POST request
oXMLHttp.open "POST", "https://www.server.com/path", False
oXMLHttp.setRequestHeader "Content-Type", _
                          "application/x-www-form-urlencoded"

' send the request
oXMLHttp.send requestString

' server's response will be available in oXMLHttp.responseXML
```

Figure 8. Visual Basic programs can use features of the MSXML tools to send and receive messages using HTTP and SSL.

Java Standard Edition and Enterprise Edition

Java

In a Java SE or EE environment, the URL class in the java.net package provides a convenient way to manage HTTP and SSL communications. Figure 9 contains a small code fragment that demonstrates the use of this class. As above, the fragment doesn't include exception handling that should be inherent in any production software.

```
import java.io.*;
import java.net.*;

URL url = new URL("https://www.server.com/path");
HttpURLConnection conn = (HttpURLConnection) url.openConnection();
conn.setRequestMethod("POST");
conn.setRequestProperty("Content-Type",
                        "application/x-www-form-urlencoded");
conn.setDoOutput(true);
PrintWriter out = new PrintWriter(conn.getOutputStream());
out.println(requestString);
out.close();
BufferedReader in = new BufferedReader(
    new InputStreamReader(conn.getInputStream()));
/* server response is available by reading the in object */
```


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Figure 9. The URL class from the java.net package is a convenient way for Java programs to use HTTP and SSL.

Open Source

Open Source

The libcurl project is an open source project that includes support for using HTTP and SSL protocols. The fragment in Figure 10 shows how to set up libcurl to send a request using HTTP and SSL. It relies on a callback function to accept the server's response.

```
CURL *curl;
CURLcode res;

/* prepare to send the request */
curl = curl_easy_init();
curl_easy_setopt(curl, CURLOPT_URL, https://www.server.com/path");
curl_easy_setopt(curl, CURLOPT_POSTFIELDS, requestString);
curl_easy_setopt(curl, CURLOPT_WRITEFUNCTION, fnCallback);

res = curl_easy_perform(curl);
```

Figure 10. The open source libcurl library simplifies the use of HTTP and SSL.

Extensible Markup Language (XML)

The Extensible Markup Language (XML) is an international standard developed by the World Wide Web Consortium, the governing body for web standards and guidelines. XML provides a way to identify the structure of content within a document or, in the case of UPS OnLine tools, a message. Figure 11 shows how a simple XML message could describe a book.

```
<?xml version="1.0" encoding="UTF-8" ?>
<book>
    <title>
        HTTP Essentials: Protocols for Secure, Scaleable Web Sites
    </title>
    <author>
        <firstname>
            Stephen
        </firstname>
        <lastname>
            Thomas
        </lastname>
    </author>
    <publisher>
        John Wiley and Sons
    </publisher>
    <year>
        2001
    </year>
    <isbn>
        0-471-398233
```

Figure 11: XML identifies the structure of documents, as in this document describing a book.

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As the figure illustrates, XML is a text-based format. XML messages contain regular text, though that text follows specific rules that XML defines. XML distinguishes different parts of a message with a label known as a *tag*. Tags in the example include <book>, <title>, <author>, <firstname>, etc. A tag can indicate the start of information if it begins with an angle bracket (<), and a tag can indicate the end of information if it begins with an angle bracket and a slash (</). A beginning tag, ending tag, and the information between the two make up an *element*. In this example the publisher element tells us that the publisher for the book is "John Wiley and Sons."

The figure also shows how an XML message follows a defined structure. Elements can be contained within other elements, as <firstname> and <lastname> are included within the <author> element. This structure indicates that firstname and lastname are "children" of the author "parent."

Although XML elements can contain almost any text, there are two special characters that cannot appear within an element. Those characters are the less-than sign (<) and the ampersand (&). Elements that include these contents must replace the special characters with "<" or "&" respectively. The name of a large telecommunications company, for example, would appear as "AT&T" within an XML message.

Because XML is a text-based format, software has to take extra steps to use XML with binary data. For example, some UPS services return binary image data such as the image of a shipping label. To include this data in an XML message, UPS converts it from binary to text format using an algorithm known as *Base64 encoding*. The "The Base16, Base32, and Base64 Data Encodings" standard, also known as RFC 3548, defines that algorithm.

Although XML messages consist of a series of text characters, most software development tools represent XML messages in a tree-like data structure. That representation clarifies the structure of the message. Figure 12 shows the same XML message as Figure 11, but it uses a more visual representation to highlight the message's structure.

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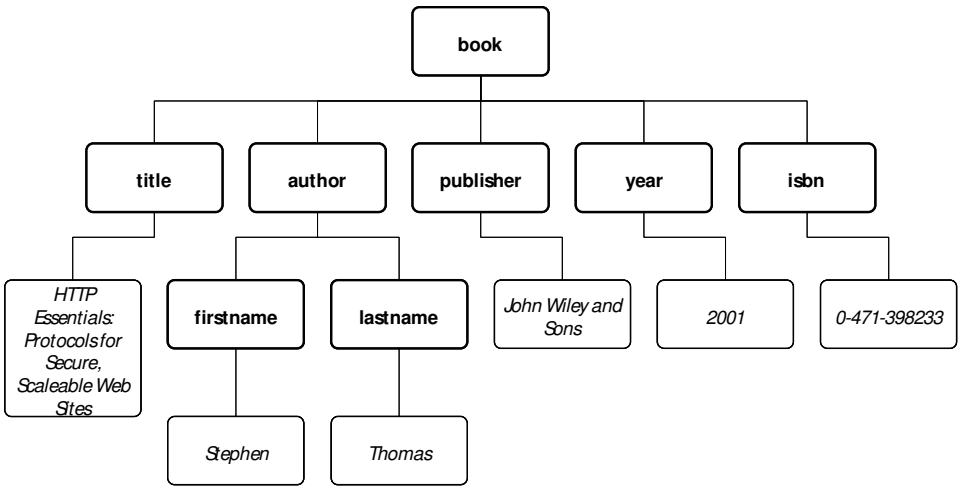

Figure 12. It is often convenient to show XML messages in a tree-like graph to highlight their structure.

The example of Figure 11 and Figure 12 is a relatively simple XML message with just a few elements. UPS OnLine Tools rely on XML messages that are larger than this simple example, and it is difficult to show them in a pure graph like Figure 12 without losing legibility. Figure 13 shows an alternate way of depicting the tree-like structure of XML messages; it uses the same example as before.

```
book
├─title
│  └─"HTTP Essentials: Protocols for Secure, Scaleable Web Sites"
├─author
│  ├─firstname
│  │  └─"Stephen"
│  └─lastname
│     └─"Thomas"
├─publisher
│  └─"John Wiley and Sons"
├─year
│  └─"2001"
└─isbn
   └─"0-471-398233"
```

Figure 13. It is possible to show the tree-like structure of XML messages using text.

A great deal of information on XML is available on the Internet. A good starting point for further research is the World Wide Web Consortium's main page on XML at http://www.w3.org/XML/.

Working with XML in Application Programs

The popularity of Extensible Markup Language means that nearly all development environments include sophisticated support for creating and interpreting XML messages. This subsection provides a brief introduction to working with XML in Microsoft, Java, and Open Source environments.

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The examples it contains are only representative approaches; many other approaches are possible.

Microsoft Visual Studio

Visual Studio

The Microsoft XML Core Services (MSXML) offers one way to work with XML documents in Visual Studio applications. Figure 14 shows one approach for creating an XML message in Visual Basic, and Figure 15 demonstrates how Visual Basic programs can interpret XML responses. To remain as simple as possible, the examples do not include any exception handling. Production software should, of course, provide full exception handling.

```
' Define a variable and initialize it to a new XML message
Dim dom
Set dom = New DOMDocument30

' Set properties of the variable
dom.async = False
dom.validateOnParse = False
dom.resolveExternals = False
dom.preserveWhiteSpace = True

' Identify the message as XML version 1.0
Set node = dom.createProcessingInstruction("xml", "version='1.0'")
dom.appendChild node
Set node = Nothing

' Create the root (book) element and add it to the message
Dim root
Set root = dom.createElement("book")
dom.appendChild root

' Create child elements and add them to the root
Dim node
Set node = dom.createElement("title")
node.text = "HTTP Essentials: ..."
root.appendChild node
Set node = Nothing

Set node = dom.createElement("author")
Dim child
Set child = dom.createElement("firstname")
child.text = "Stephen"
node.appendChild child
Set child = Nothing
Set child = dom.createElement("lastname")
child.text = "Thomas"
node.appendChild child
root.appendChild node

' And so on
```

Figure 14. Visual Basic can create XML messages through the DOMDocument object.

```
' Define a variable to hold the parsed message
Dim dom As New DOMDocument30
dom.async = False
dom.validateOnParse = False
dom.resolveExternals = False
dom.preserveWhiteSpace = True

' Try to parse the message
If dom.loadXML(messageText) = False Then
    ' The text did not contain valid XML
```


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```
End If

' Get the title information from the message
Dim node As IXMLDOMNode
Set node = dom.selectSingleNode("/title")
If node Is Nothing Then
    ' The message did not contain title information
Else
    ' Do something with node.text
End If
```

Figure 15. Visual Basic can read the contents of XML messages after parsing them with the DOMDocument object.

Visual Basic also has built-in classes to interpret Base64-encoded values. The `Convert.FromBase64String()` function converts from a Base64-encoded string to an array of 8-bit unsigned integers.

Java Standard Edition and Enterprise Edition

Java

The Java API for XML Processing (JAXP) is the preferred approach for working with XML messages in Java. Figure 16 shows how a BookClass object can be converted into an XML message, a process that JAXP calls *marshalling*. Similarly, Figure 17 shows the reverse process, where an XML message is converted into a BookClass object. This reverse process is *unmarshalling*. As above, exception handling code is omitted from these examples to make them as clear as possible.

```
import javax.xml.bind.JAXBContext;
import javax.xml.bind.Marshaller;
import java.io.StringWriter;

/* create the book object */
BookClass book = new BookClass("HTTP Essentials...",
    new AuthorClass("Stephen", "Thomas"),
    "John Wiley and Sons",
    "2001",
    "0-471-398233");

/* convert it to an XML string */
StringWriter writer = new StringWriter();
JAXBContext context = JAXBContext.newInstance(book.class);
Marshaller m = context.createMarshaller();
m.marshal(book, writer);
```

Figure 16. JAXP provides a convenient way for Java applications to create XML messages from Java objects.

```
import javax.xml.bind.JAXBContext;
import javax.xml.bind.Marshaller;
import java.io.StringReader;

/* xmlMessage contains the XML message */
StringReader reader = new StringReader(xmlMessage);
JAXBContext context = JAXBContext.newInstance(Book.class);
Unmarshaller u = context.createUnmarshaller();
BookClass book = (BookClass) u.unmarshal(reader);

/* access properties of the book */
System.out.println(book.getAuthor().getFirstname())
```

Figure 17. JAXP also gives Java applications a convenient way to retrieve elements from an XML message.

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Open Source

Open Source

As of this writing, the most popular open source tool for working with XML is the xerces project. That project includes C++, Java, and Perl implementations of an XML library. The xerces distribution includes extensive sample applications. The code fragment in Figure 18 demonstrates creating an XML message in C++ with the xerces library. Figure 19 shows sample code for accessing an element within an XML message. In both cases exception handling is not shown in order to keep the examples as simple as possible. Production software should always contain full exception handling.

```
DOMImplementation* impl =
    DOMImplementationRegistry::getDOMImplementation(X("Core"));

DOMDocument* doc = impl->createDocument(0, X("book"), 0);
DOMElement* rootElem = doc->getDocumentElement();

DOMElement* titleElem = doc->createElement(X("title"));
rootElem->appendChild(titleElem);

DOMText* titleVal = doc->createTextNode(X("HTTP Essentials..."));
titleElem->appendChild(titleVal);
```

Figure 18. The Xerces C++ library includes classes that can create XML messages.

```
XMLCh* TAG_book;
XMLCh* TAG_title;
xercesc::XercesDOMParser *parser;

XMLPlatformUtils::Initialize();
TAG_book  = XMLString::transcode("book");
TAG_title = XMLString::transcode("title");

parser = new XercesDOMParser;
parser->parse(inputText);
DOMDocument* xmlDoc = parser->getDocument();
DOMElement* elementRoot = xmlDoc->getDocumentElement();
DOMNodeList* children = elementRoot->getChildNodes();
const XMLSize_t nodeCount = children->getLength();
for (XMLSize_t cnt = 0; cnt < nodeCount; ++cnt ) {
    DOMNode* currentNode = children->item(cnt);
    if( currentNode->getNodeType() &&
        currentNode->getNodeType() == DOMNode::ELEMENT_NODE ) {
        DOMElement* currentElement =
            dynamic_cast< xercesc::DOMElement* >( currentNode );
        if( XMLString::equals(currentElement->getTagName(),
                              TAG_title)) {
            /* do something with the title */
        }
    }
}
```

Figure 19. The Xerces C++ library also supports parsing XML messages to find individual elements.

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Understanding UPS OnLine Tools Shipping Services

This section provides an overview of the OnLine Tools Shipping Services. It describes the services available through the OnLine Tools, and it explains—at an overview level—how the tools operate. The next section, "Shipping Reference," documents the details of the Shipping Services OnLine Tools operations.

What Shipping Services Can Do

OnLine Tools make UPS shipping services available to client applications that communicate with UPS using the Internet. With the OnLine Tools applications can prepare or schedule small package shipments, manage returns, or cancel previously scheduled shipments.

Shipments

OnLine Tools Shipping Services give your applications many ways to manage the shipment of small packages to their destination. UPS offers a range of delivery time frames from same day to standard ground transportation. Shipments may be within the United States or international, and they may range from letter documents to large packages. (Note: for freight services, please refer to UPS OnLine Tools designed for freight services.)

UPS also supports many valued added services for shipments, including collect on delivery (COD), declared value, delivery confirmation, and automatic notification of delivery status.

For full details on all UPS shipping services, please consult the latest *UPS Rate and Service Guide* available at http://www.ups.com. Note that these shipments are sometimes called *forward shipments* or *outbound shipments* to distinguish them from returns.

Cancellations (Voids)

If you need to cancel a previously processed shipment, the UPS OnLine Tools Shipping Services let client applications automate that task. This process is known as *voiding* a shipment.

Returns

UPS OnLine Tools also support the UPS returns services. Either as part of a forward shipment or in a separate process, clients can request a return label for their customers. (Note: UPS can provide a label for a return shipment even if it did not provide a label for the forward shipment.) With return services, you can include a label in an outbound shipment, ask UPS to email or mail the return label to your customer, or request a UPS driver to pick up the package at the your customer’s location. As with

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forward shipments, details on return shipment services can be found in the latest *UPS Rate and Service Guide* at http://www.ups.com.

How Shipping Services Work

Because forward and return shipments share many of the same characteristics (they have an origin, destination, service type, etc.), UPS OnLine Tools use the same procedure and message types for both services. Cancelling or voiding a shipment requires its own procedure and message types.

Forward and Return Shipments

For forward and return services client applications use a four-step procedure to process a shipment. As Figure 20 shows, the procedure begins when a client application sends a ShipmentConfirmRequest to UPS. This request provides details of the shipment and the desired UPS services. UPS replies to this request with a ShipmentConfirmResponse. ShipmentConfirmResponses include estimated rates for the shipment. If the rates and services are acceptable to the client, it sends a ShipmentAcceptRequest to UPS. This message authorizes UPS to charge for the shipment and process the shipment data. UPS acknowledges the request by returning a ShipmentAcceptResponse. For forward shipments and for preprinted return labels, this response includes a label for the shipment.

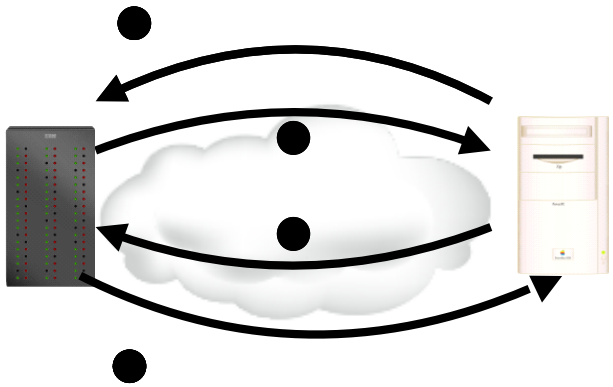

Figure 20. Forward and return shipments require four separate steps to complete the shipment processing.

Clients that want to include preprinted labels as part of forward shipments must perform this four-step procedure twice. One time processes the forward shipment, and the second time retrieves the return label.

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Cancellations (Voids)

To cancel, or *void*, a previously scheduled shipment, client applications send a VoidShipmentRequest to UPS. As Figure 21 illustrates, UPS replies to this request with a VoidShipmentResponse.

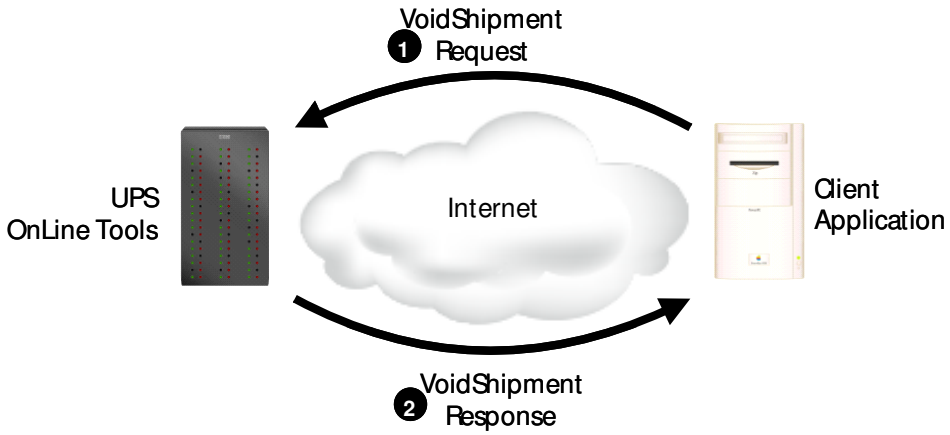

Figure 21. VoidShipmentRequest messages let client applications cancel a previously scheduled shipment.

Applications may void forward shipments up to 28 days after initially processing them. Return shipments must be voided within 24 hours.

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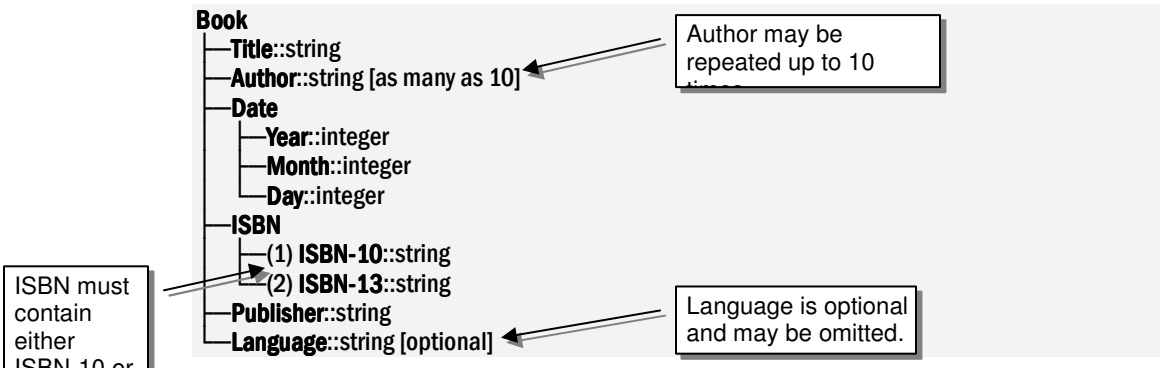
Shipping Reference

This section documents the details of the XML messages, including the requests that clients send to UPS and the responses that UPS returns. The first subsection explains the notation that this section uses. It is followed by a section that describes how UPS verifies that client applications are authorized to use the tool. The next subsections define the messages used by the tool for its services. The final subsection provides a list of error codes.

Describing OnLine Tools Messages

As noted previously, all messages that UPS OnLine Tools send and receive consist of XML documents. This reference section defines the specific elements within those XML documents. Because XML documents follow a defined structure, this reference shows those elements using a compact, graphical notation. Here is an example of that notation, with some additional annotations to highlight important conventions:



The figure indicates that a "Book" can contain six different child elements: Title, Author, Date, ISBN, Publisher, and Language. The Language element is marked "optional" so it is not required. All of the other five elements are required, however. Notice that the Author element can appear as many as ten times within the Book document. (The technical name for this property is *cardinality*.)

Some of the child elements can themselves contain child elements. The Date element, for example, consists of a Year element, a Month element, and a Day element.

Finally, notice that the children of the ISBN element (ISBN-10 and ISBN-13) have a number in parentheses preceding them. This number indicates a choice. In this example, the ISBN element must have either an ISBN-10 child element or an ISBN-13 child element, but it cannot have both.

If an element has no child elements, the notation convention shows the type of content that the element can contain. In the example, Year, Month, and Day must contain integer numbers, while other primitive elements can contain arbitrary text strings.

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Authenticating Client Applications

UPS OnLine Tools Shipping Services are only available for authorized UPS customers. To enforce this policy, UPS requires that every message that a client application sends include important authentication information. That information is contained in an AccessRequest XML document that must begin each message.

AccessRequest

```
AccessRequest
  ├─AccessLicenseNumber::string
  ├─UserId::string
  └─Password::string
```

Each AccessRequest contains three child elements: an AccessLicenseNumber, a UserId, and a Password. The following figure shows an example AccessRequest document.

```
<?xml version="1.0" ?>
<AccessRequest xml:lang='en-US'>
    <AccessLicenseNumber>
        YOURACCESSLICENSENUMBER
    </AccessLicenseNumber>
    <UserId>
        YOURUSERID
    </UserId>
    <Password>
        YOURPASSWORD
    </Password>
</AccessRequest>
```

Forward Shipments

Four different message types make up a complete shipment processing procedure: ShipmentConfirmRequest, ShipmentConfirmResponse, ShipmentAcceptRequest, and ShipmentAcceptResponse.

(Forward) ShipmentConfirmRequest

The ShipmentConfirmRequest message consists of two complete XML documents. The first document is an AccessRequest. The AccessRequest is immediately followed by (concatenated to) a ShipmentConfirmRequest. When a client application is undergoing testing and integration, the document combination should be sent to the URL:

https://wwwcie.ups.com/ups.app/xml/ShipConfirm

Once a client application is in production, the combined documents should be sent to the URL provided as part of the certification process.

The ShipmentConfirmRequest document in the request must conform to the following XML structure.

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(Forward) ShipmentConfirmRequest XML Details:

ShipmentConfirmRequest
- **Request**
  - **RequestAction**::string *'ShipConfirm'*
  - **RequestOption**::string *for ShipConfirm, either 'validate' (validate the address, which is the default) or 'nonvalidate' (don't validate the address). ,(NOTE: if the validateoption is selected and the address is not valid, the request will fail with an address validation error.)*
  - **TransactionReference** [optional]
    - **CustomerContext** [optional] *any valid XML content up to 512 characters long; client-supplied values in a request are returned in the corresponding response*
    - **XpciVersion**::string [optional] *current version is '1.0001'*
- **Shipment**
  - **Description**::string [optional] *up to 35 characters; required for international shipments when ShipFrom and ShipTo countries differ and the packaging type is not UPS Letter, or when ShipFrom and or ShipTo countries are not in the European Union, or when the ShipFrom and ShipTo countries are both in the European Union and the shipment's service type is not UPS Standard*
  - **DocumentsOnlyIndicator** [optional] *if present, shipment contains only documents with no commercial value. (NOTE: Valid only for shipments with different origin and destination countries. The origin country is not the US, and the destination country is not CA, PR, or MX.*
  - **Shipper** *(NOTE: This is the address that is printed on the package label in the upper right hand corner. This will serve as the return to address if a package is undeliverable)*
    - **Name**::string *up to 35 characters*
    - **AttentionName**::string [optional] *up to 35 characters; required for international shipments and next day air early AM service*
    - **ShipperNumber**::string *6-digit alphanumeric UPS account number. (NOTE: must be associated with the user id specified in the accessrequest. The account must be active and of type 01 daily pickup, 04 occassional air, or 07 occassional for all origins.*
    - **TaxIdentificationNumber**::string [optional] up to 15 characters; *required for SED forms with no ShipFrom information; up to 15 characters*
    - **PhoneNumber** [optional] *may either be 15 numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
      - **StructuredPhoneNumber** [optional*] required if parent element, PhoneNumber is required and a phone number is not provided at the parent node.*
        - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1' (Note: not valid for US phone numbers*
        - **PhoneDialPlanNumber**::string *up to 15 characters*
        - **PhoneLineNumber**::string *up to 15 characters*
        - **PhoneExtension**::string [optional] *up to 4 characters*
    - **FaxNumber**::string [optional] *up to 15 digits*
    - **EMailAddress**::string [optional] *up to 50 characters*
    - **Address** [optional] *the address must indicate a country which is a valid origin country for the service*
      - **AddressLine1**::string *up to 35 characters*
      - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
      - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
      - **City**::string *up to 30 characters*
      - **StateProvinceCode**::string [optional] *(Upper case) 2 to 5 characters; required for US, Mexico, and Canada. (NOTE: for Ireland use the 5 digit abbreviation for county)*
      - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*

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- **CountryCode**::string *two-character country abbreviation; see appendix for details*

ShipTo
- **CompanyName**::string *up to 35 characters*
- **AttentionName**::string [optional] *up to 35 characters; required for international shipments and next day air early AM service*
- **TaxIdentificationNumber**::string [optional] *up to 15 characters*
- **PhoneNumber** [optional] *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations and UPS Next Day Air Early AM shipments*
  - **StructuredPhoneNumber** [optional]
    - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1'*
    - **PhoneDialPlanNumber**::string *up to 15 characters*
    - **PhoneLineNumber**::string *up to 15 characters*
    - **PhoneExtension**::string [optional] *up to 4 characters*
- **FaxNumber**::string [optional] *up to 15 digits*
- **EMailAddress**::string [optional] *up to 50 characters*
- **Address**
  - **AddressLine1**::string *up to 35 characters*
  - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
  - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
  - **City**::string *up to 30 characters*
  - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada. (NOTE: for Ireland use the 5 digit abbreviation for county)*
  - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
  - **CountryCode**::string *two-character country abbreviation; see appendix for details*
  - **ResidentialAddress** *if present, address is for a residence*
- **LocationID**::string [optional] *3-10 characters; restricted to numbers or upper case letters*

ShipFrom [optional] *required if pickup location differs from shipper's address (NOTE: The shipment wil be rated from this origin address to the destination shipto address.*
- **CompanyName**::string *up to 35 characters*
- **AttentionName**::string [optional] *up to 35 characters; required for international shipments and next day air early AM service*
- **TaxIdentificationNumber**::string [optional] *required for SED forms; up to 15 characters*
- **PhoneNumber** [optional] *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
  - **StructuredPhoneNumber** [optional]
    - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1'*
    - **PhoneDialPlanNumber**::string *up to 15 characters*
    - **PhoneLineNumber**::string *up to 15 characters*
    - **PhoneExtension**::string [optional] *up to 4 characters*
- **FaxNumber**::string [optional] *up to 15 digits*
- **Address**
  - **AddressLine1**::string *up to 35 characters*
  - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
  - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
  - **City**::string *up to 30 characters*
  - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
  - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
  - **CountryCode**::string *two-character country abbreviation; see appendix for details*

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- **SoldTo** [optional] *required for invoice and NAFTA CO forms*
  - **Option**::string [optional] *'01' (unknown) or '02' (various)*
  - **CompanyName**::string [optional] *applies to invoice form or NAFTA CO form without a SoldTo option value; in both cases it is required; up to 35 characters*
  - **AttentionName**::string [optional] *applies to invoice form or NAFTA CO form without a SoldTo option value; in both cases it is required; up to 35 characters; required for international shipments and next day air early AM service*
  - **TaxIdentificationNumber**::string [optional] *required unless Option is included; up to 15 characters*
  - **PhoneNumber** [optional] *may be up to 15 numeric digits as a character stream*
  - **Address**
    - **AddressLine1**::string *up to 35 characters*
    - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
    - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
    - **City**::string *up to 30 characters*
    - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
    - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
    - **CountryCode**::string *two-character country abbreviation; see appendix for details*
- **PaymentInformation** [optional] *either PaymentInformation or ItemizedPaymentInformation must be included, but not both*
  - (1) **Prepaid** *required for BillShipper*
    - **BillShipper** *billing information for shipper*
      - (1) **AccountNumber**::string *must match the ShipperNumber for the shipper*
      - (2) **CreditCard**
        - **Type**::string *'01'(American Express), '03' (Discover, from US only), '04' (Mastercard), or '06' (VISA)*
        - **Number**::string *9-16 characters*
        - **ExpirationDate**::string *format is 'MMYYYY'*
        - **SecurityCode**::string *3 or 4 digit credit card security code; required for shipments from US, Canada, or Puerto Rico*
        - **Address** [optional] *required for shipments from US, Puerto Rico, and Canada*
          - **AddressLine1**::string *up to 35 characters*
          - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
          - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
          - **City**::string *up to 30 characters*
          - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
          - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
          - **CountryCode**::string *two-character country abbreviation; see appendix for details*
  - (2) **BillThirdParty** *required if third party is billed for all or part of charges*
    - **BillThirdPartyShipper** *billing information for third party to be billed for all or part of charges*
      - **AccountNumber**::string *for US, Puerto Rican and Canadian accounts, the account must be either a daily pickup account, an occasional account, a customer B.I.N account, or a drop shipper account; all other accounts must be either a daily pickup account, an occasional account, a drop shipper account, or a non -shipping account*
      - **ThirdParty**

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└**Address**
├**PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
└**CountryCode**::string *two-character country abbreviation; see appendix for details*
├(3) **FreightCollect** *recipient or importer pays all shipping charged*
└**BillReceiver** *billing information for recipient; required if recipient is billed for all or part of charges*
├**AccountNumber**::string
└**Address** [optional]
└**PostalCode**::string *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes CANNOT include a '-' separator*
└(4) **ConsigneeBilled**::string *if present, consignee is billed for shipment; element should be empty*
├**ItemizedPaymentInformation** [optional] *either PaymentInformation or ItemizedPaymentInformation must be included, but not both*
├**ShipmentCharge** [as many as 2] *if duty and tax charges apply to a shipment and no payer is specified, UPS will bill the receiver*
├**Type**::string *'01' (transportation) or '02' (duties and taxes); transportation charges are required; duties and taxes are optional and only not valid if origin and destination are the same, US and Puerto Rico, or within the European Union when GoodsNotInFreeCirculation is present*
├(1) **BillShipper** *billing information for shipper*
├(1) **AccountNumber**::string *must match the ShipperNumber for the shipper*
└(2) **CreditCard**
├**Type**::string *'01'(American Express), '03' (Discover, from US only), '04' (Mastercard), or '06' (VISA)*
├**Number**::string *9-16 characters*
├**ExpirationDate**::string *format is 'MMYYYY'*
├**SecurityCode**::string *3 or 4 digit credit card security code; required for shipments from US, Canada, or Puerto Rico*
└**Address** [optional] *required for shipments from US, Puerto Rico, and Canada*
├**AddressLine1**::string *up to 35 characters*
├**AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
├**AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
├**City**::string *up to 30 characters*
├**StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
├**PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
└**CountryCode**::string *two-character country abbreviation; see appendix for details*
├(2) **BillReceiver** *postal code in BillReceiver's address must be the same as the postal code for the UPS account's pickup address; billing information for recipient; required if recipient is billed for all or part of charges*
├**AccountNumber**::string
└**Address** [optional]
└**PostalCode**::string *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
├(3) **BillThirdParty** *postal code in ThirdParty's address must be the same as the postal code for the UPS account's pickup address; required if third party is billed for all or part of charges*
├(1) **BillThirdPartyShipper** *billing information for third party to be billed for all or*

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part of charges
AccountNumber::string *for US, Puerto Rican and Canadian accounts, the account must be either a daily pickup account, an occasional account, a customer B.I.N account, or a drop shipper account; all other accounts must be either a daily pickup account, an occasional account, a drop shipper account, or a non-shipping account*
ThirdParty
Address
PostalCode::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
CountryCode::string *two-character country abbreviation; see appendix for details*
(2) **BillThirdPartyConsignee** *billing information for third party consignee to be billed for all or part of charges*
AccountNumber::string
ThirdParty
Address
PostalCode::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
CountryCode::string *two-character country abbreviation; see appendix for details*
(4) **ConsigneeBilled**::string *if present, consignee is billed; only valid for transportation charges and US or Puerto Rico origin and destination; should be empty*
SplitDutyVATIndicator [optional] *only valid for UPS daily pickup or occasional accounts; if present, party which pays transportation charges will also pay any duties that apply to the shipment; party specified for Duties and Taxes will pay the VAT (Value-Added Tax) only*
GoodsNotInFreeCirculationIndicator [optional]
RateInformation [optional]
NegotiatedRatesIndicator [optional] *if present, negotiated rates are requested; negotiated rates are only returned for qualified Shipper Account Numbers; eligibility is determined by checking both the UserID and the shipper's Shipper Account Number; if the user is qualified, both Published rates and Negotiated rates are returned to the user; if the UserID and Shipper Account Number are not qualified for Negotiated rates, a warning message is returned that indicates ineligibility and only the Published rates are returned in the response*
ReferenceNumber [optional, unbounded] *for shipments, up to two reference number codes and values are supported. (NOTE: Valid only for shipments that have a non-US/PR origin (shipfrom) and non US/PR destination (shipto)*
Code::string *2 characters;*
Value::string *up to 35 characters*
Service
Code::string *UPS shipment service code. See appendix for details*
Description::string [optional]
InvoiceLineTotal [optional] *required for forward shipments that do not have any packages of type UPS Letter and whose origin is the US and destination is Puerto Rico or Canada; not available for any other shipments; if International forms Invoice is requested, this value should match the invoice line total on the invoice form; otherwise it will be replaced by the actual calculated invoice line total*
CurrencyCode::string [optional] *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
MonetaryValue::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
ShipmentServiceOptions [optional]
SaturdayDelivery [optional] *if present, package may be delivered on Saturday*

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- **OnCallAir** [optional] *used to request Air and Ground pickups*
  - **PickupDetails** [optional]
    - **DistrictCode**::string [optional] *2-4 character district code for Hong Kong*
    - **PickupDate**::string *required for an on call air pickup; must be within ten days of the shipment's creation date; format is 'YYYYMMDD'*
    - **EarliestTimeReady**::string [optional] *soonest time that the shipment can be picked up; required for an on call air pickup; format is 'HHMM' ranging from 0000 to 2359*
    - **LatestTimeReady**::string [optional] *latest time that the shipment can be picked up; required for an on call air pickup; format is 'HHMM' ranging from 0000 to 2359*
    - **SuiteRoomID**::string [optional] *up to 8 characters*
    - **FloorID**::string [optional] *up to 3 characters*
    - **Location**::string [optional] *up to 11 characters*
    - **ContactInfo** *required for an on call air pickup*
      - **Name**::string *up to 35 characters*
      - **PhoneNumber** *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
        - **StructuredPhoneNumber** [optional]
          - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1'*
          - **PhoneDialPlanNumber**::string *up to 15 characters*
          - **PhoneLineNumber**::string *up to 15 characters*
          - **PhoneExtension**::string [optional] *up to 4 characters*
  - **COD** [optional] *COD is only available for EU origin countries and for shipper's account type "Daily Pickup" and "Drop Shipping"; collect on delivery; UPS should collect money from recipient prior to releasing package*
    - **CODCode**::string *must be '3'*
    - **CODFundsCode**::string *'1' (cash only, for Canada) or '9' (personal check, cashier's check, or money order, no cash allowed)*
    - **CODAmount**
      - **CurrencyCode**::string [optional] *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
      - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **Notification** [optional, as many as 3]
    - **NotificationCode**::string *for shipment notification: '6' (QuantumView Ship Notification), '7' (QuantumView Exception Notification), '8' (QuantumView Delivery Notification)*
    - **EMailMessage**
      - **EMailAddress**::string [as many as 5] *up to 50 characters*
      - **UndeliverableEMailAddress**::string [optional] *address for forwarding messages which cannot be delivered*
      - **FromName**::string [optional] *defaults to shipper name*
      - **Memo**::string [optional] *text of message; text of email message*
      - **Subject**::string [optional] *up to 75 characters; The eMail's subject. Defaults to text provided by UPS*
      - **SubjectCode**::string [optional] *'01' (shipment reference number 1), '02' (shipment reference number 2), '03' (package reference number 1), '04' (package reference number 2)*
  - **InternationalForms** [optional] *see separate subsection for International Forms components*
- **Package** [as many as 200]
  - **Description**::string [optional]
  - **PackagingType** [optional]
    - **Code**::string *2 characters; '01' (UPS letter), '02' (customer supplied package), '03' (tube), '04' (PAK), '21' (UPS express box), '2a' (UPS*

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small express box), ' 2b' (UPS medium express box), '2c' (UPS large express box), '24' (UPS 25KG box), '25' (UPS 10KG box),,or '30' (pallet) packaging type must be valid for all the following: ShipTo country, ShipFrom country, a shipment going from ShipTo country to ShipFrom country, all accessorials at both the shipment and package level, and the shipment service type

- **Description**::string [optional]

Dimensions [optional] *length + 2 * (width + height) must be less than or equal to 130 IN or 330 CM; dimensions required for shipments within the UK or within Poland*

- **UnitOfMeasurement** [optional]
  - **Code**::string *dimension units are 'IN' (inches) or 'CM' (centimeters); can also use '00' for metric or '01' for English; normally defaults to the units common in the origin country, but Canadian shipments must specify a unit*
  - **Description**::string [optional]
- **Length**::string *up to 9 characters; largest dimension, rounded up to whole number; maximum of 108in or 270cm*
- **Width**::string *up to 9 characters; rounded up to whole number*
- **Height**::string *up to 9 characters; rounded up to whole number*

PackageWeight [optional]

- **UnitOfMeasurement** [optional]
  - **Code**::string *weight units are 'LBS' (pounds) or 'KGS' (kilograms); can also use '00' for metric or '01' for English; normally defaults to the units common in the origin country, but Canadian shipments must specify a unit*
  - **Description**::string [optional]
- **Weight**::string *up to 5 characters; up to one digit after the decimal place*

LargePackageIndicator::string [optional]

ReferenceNumber [optional, unbounded] *for packages, up to two reference number codes and values are supported. Valid only within the US or Puerto Rico*

- **Code**::string *2 characters*
- **Value**::string *up to 35 characters*

AdditionalHandling [optional] *if present, additional handling is required*

PackageServiceOptions [optional]

- **DeliveryConfirmation** [optional] *only allowed for shipments within the US*
  - **DCISType**::string *'1' (delivery confirmation), '2' (signature required), or '3' (adult signature required)*
  - **DCISNumber**::string [optional] *delivery confirmation control number*
- **InsuredValue** [optional]
  - **Type**::string [optional] *3-letter currency abbreviation; defaults to the*
    - **TypeCode**::string [optional] *2-character code: values are '01' (EVS Declared Value) or '02' (DVS Shipper Declared Value). Defaults to '01'*
    - **Description**:: string [optional] *up to 35 characters*
  - **CurrencyCode**::string [optional] *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
  - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
- **COD** [optional] *package-level COD available for shipments from US/PR to US/PR, CA to CA, and CA to US; CA to US COD is not allowed for letter/envelope packages; collect on delivery; UPS should collect money from recipient prior to releasing package*
  - **CODCode**::string *must be '3'*
  - **CODFundsCode**::string *'0' (cash only, for Canada), '8' (cashier's check or money order, no cash allowed),*
  - **CODAmount**
    - **CurrencyCode**::string [optional] *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after*

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decimal point; must use period (.) for fractional values
- **VerbalConfirmation** [optional]
  - **ContactInfo** [optional] *if absent; shipper's attention name and phone number must be provided and are used as contact information*
    - **Name**::string *up to 35 characters*
    - **PhoneNumber** *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
      - **StructuredPhoneNumber** [optional]
        - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1'*
        - **PhoneDialPlanNumber**::string *up to 15 characters*
        - **PhoneLineNumber**::string *up to 15 characters*
        - **PhoneExtension**::string [optional] *up to 4 characters*
  - **ShipperReleaseIndicator** [optional] *if present, driver may release package without a signature; only valid in US and Puerto Rico*
- **LabelSpecification** *default values are GIF format and Mozilla/4.5 user agent*
  - **LabelPrintMethod** [optional]
    - **Code**::string *valid values are 'GIF', 'EPL' 'ZPL' and 'SPL'*
    - **Description**::string [optional]
  - **HTTPUserAgent**::string [optional] *Supported user agent values are 'Mozilla/7.0', 'Mozilla/6.0', 'Mozilla/5.0', 'Mozilla/4.9', 'Mozilla/4.8', 'Mozilla/4.7', 'Mozilla/4.6', 'Mozilla/4.5', 'Mozilla/4.4', 'Mozilla/4.3', 'Mozilla/4.2', 'Mozilla/4.1', 'Mozilla/4.09', 'Mozilla/4.08', 'Mozilla/4.07', 'Mozilla/4.06', 'Mozilla/4.05', 'MSIE 4.5', 'MSIE 5.0', 'MSIE 5.5', 'MSIE 6.0', and 'MSIE 7.0'; default value is 'Mozilla/4.5'*
  - **LabelStockSize** [optional] *only for ZPL, EPL and SPL labels; valid values are 4x6 or 4x8*
    - **UnitOfMeasurement** [optional]
      - **Description**::string [optional]
    - **Height**::string *up to 9 characters; rounded up to whole number*
    - **Width**::string *up to 9 characters; rounded up to whole number*
  - **LabelImageFormat** *GIF , ZPL, SPL or EPL2 Eltron printer image*
    - **Code**::string *valid values are 'GIF', 'EPL' 'ZPL' and 'SPL'*
    - **Description**::string [optional]

ShipmentConfirmRequest Example Message:

```
<?xml version="1.0" ?>
<AccessRequest xml:lang='en-US'>
    <AccessLicenseNumber>YOURACCESSLICENSENUMBER</AccessLicenseNumber>
    <UserId>YOURUSERID</UserId>
    <Password>YOURPASSWORD</Password>
</AccessRequest>
<?xml version="1.0" ?>
<ShipmentConfirmRequest>
    <Request>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <RequestAction>ShipConfirm</RequestAction>
        <RequestOption>nonvalidate</RequestOption>
    </Request>
    <Shipment>
        <Shipper>
```


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```
            <Name>Joe's Garage</Name>
            <AttentionName>John Smith</AttentionName>
            <PhoneNumber>9725551212</PhoneNumber>
            <ShipperNumber>123X67</ShipperNumber>
            <Address>
                <AddressLine1>1000 Preston Rd</AddressLine1>
                <City>Plano</City>
                <StateProvinceCode>TX</StateProvinceCode>
                <CountryCode>US</CountryCode>
                <PostalCode>75093</PostalCode>
            </Address>
        </Shipper>
        <ShipTo>
            <CompanyName>Pep Boys</CompanyName>
            <AttentionName>Manny</AttentionName>
            <PhoneNumber>
                <StructuredPhoneNumber>
                    <PhoneDialPlanNumber>410</PhoneDialPlanNumber>
                    <PhoneLineNumber>5551212</PhoneLineNumber>
                    <PhoneExtension>1234</PhoneExtension>
                </StructuredPhoneNumber>
            </PhoneNumber>
            <Address>
                <AddressLine1>201 York Rd</AddressLine1>
                <City>Timonium</City>
                <StateProvinceCode>MD</StateProvinceCode>
                <CountryCode>US</CountryCode>
                <PostalCode>21093</PostalCode>
                <ResidentialAddress />
            </Address>
        </ShipTo>
        <Service>
            <Code>14</Code>
            <Description>Next Day Air Early AM</Description>
        </Service>
        <PaymentInformation>
            <Prepaid>
                <BillShipper>
                    <CreditCard>
                        <Type>06</Type>
                        <Number>4111111111111111</Number>
                        <ExpirationDate>121999</ExpirationDate>
                    </CreditCard>
                </BillShipper>
            </Prepaid>
        </PaymentInformation>
        <ShipmentServiceOptions>
            <OnCallAir>
                <PickupDetails>
                    <PickupDate>09132000</PickupDate>
                    <EarliestTimeReady>0945</EarliestTimeReady>
                    <LatestTimeReady>1445</LatestTimeReady>
                    <ContactInfo>
                        <Name>Jane Smith</Name>
                        <PhoneNumber>9725551234</PhoneNumber>
                    </ContactInfo>
                </PickupDetails>
```


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```
            </OnCallAir>
        </ShipmentServiceOptions>
        <Package>
            <PackagingType>
                <Code>02</Code>
            </PackagingType>
            <Dimensions>
                <UnitOfMeasurement>
                    <Code>IN</Code>
                </UnitOfMeasurement>
                <Length>22</Length>
                <Width>20</Width>
                <Height>18</Height>
            </Dimensions>
            <PackageWeight>
                <Weight>14.1</Weight>
            </PackageWeight>
            <ReferenceNumber>
                <Code>02</Code>
                <Value>1234567</Value>
            </ReferenceNumber>
            <PackageServiceOptions>
                <InsuredValue>
                    <CurrencyCode>USD</CurrencyCode>
                    <MonetaryValue>149.99</MonetaryValue>
                </InsuredValue>
                <VerbalConfirmation>
                    <Name>Sidney Smith</Name>
                    <PhoneNumber>4105551234</PhoneNumber>
                </VerbalConfirmation>
            </PackageServiceOptions>
        </Package>
        <Package>
            <PackagingType>
                <Code>02</Code>
            </PackagingType>
            <PackageWeight>
                <Weight>22.0</Weight>
            </PackageWeight>
            <ReferenceNumber>
                <Code>PM</Code>
                <Value>1234568</Value>
            </ReferenceNumber>
            <ReferenceNumber>
                <Code>ST</Code>
                <Value>Distributor</Value>
            </ReferenceNumber>
            <PackageServiceOptions>
                <InsuredValue>
                    <MonetaryValue>299.99</MonetaryValue>
                </InsuredValue>
            </PackageServiceOptions>
        </Package>
    </Shipment>
    <LabelSpecification>
        <LabelPrintMethod>
            <Code>GIF</Code>
```


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```
        </LabelPrintMethod>
        <HTTPUserAgent>Mozilla/4.5</HTTPUserAgent>
        <LabelImageFormat>
            <Code>GIF</Code>
        </LabelImageFormat>
    </LabelSpecification>
</ShipmentConfirmRequest>
```

(Forward) ShipmentConfirmResponse

The ShipmentConfirmResponse message contains a single XML document that conforms to the following structure.

(Forward) ShipmentConfirmResponse XML Details:

ShipmentConfirmResponse
- **Response**
  - **TransactionReference** [optional]
    - **CustomerContext** [optional] *any valid XML content up to 512 characters long; client-supplied values in a request are returned in the corresponding response*
    - **XpciVersion**::string [optional] *current version is '1.0001'*
  - **ResponseStatusCode**::string *'1' (request succeeded) or '0' (request failed)*
  - **ResponseStatusDescription**::string [optional] *'Success' or 'Failure'*
  - **Error** [optional, unbounded]
    - **ErrorSeverity**::string *'TransientError' (service temporarily unavailable; retry later), 'HardError' (request cannot be processed), or 'Warning' (request processed, but client should note potential problems)*
    - **ErrorCode**::string
    - **ErrorDescription**::string [optional]
    - **ErrorLocation** [optional, unbounded]
      - **ErrorLocationElementName**::string [optional] *Xpath expression that identifies the element in error*
      - **ErrorLocationElementReference**::string [optional]
      - **ErrorLocationAttributeName**::string [optional] *name of attribute in error*
    - **ErrorDigest**::string [optional, unbounded] *contents of the element in error*
- **ShipmentCharges** [optional]
  - **TransportationCharges**
    - **CurrencyCode**::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **ServiceOptionsCharges**
    - **CurrencyCode**::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **TotalCharges**
    - **CurrencyCode**::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **NegotiatedRates** *negotiated Rates are only returned for qualified Shipper Account Numbers; eligibility is determined using the combination of UserID and the Shipper's Shipper Account Number; if the user is qualified, both Published rates and Negotiated rates are returned to the user; if the UserID and Shipper Account Number are not qualified for Negotiated rates, a warning message is returned that indicates ineligibility*

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and only the Published rates are returned in the response
NetSummaryCharges
GrandTotal
CurrencyCode::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
MonetaryValue::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
BillingWeight *weight used to calculate rate; may differ from actual weight when additional charges for oversize dimensions or weight apply*
UnitOfMeasurement *same as in ShipmentConfirmRequest*
Code::string
Description::string [optional]
Weight::string *up to 5 characters; up to one digit after the decimal place; '0' used for letters*
ShipmentIdentificationNumber::string *18 characters*
ShipmentDigest::string *special data that UPS generates to uniquely identify the shipment; this information must be returned without modification in a ShipmentAcceptRequest*

(Forward) ShipmentConfirmResponse Example Message:

```
<?xml version="1.0" ?>ShipmentAcceptRequest
<ShipmentConfirmResponse>
    <Response>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <ResponseStatus>0</ResponseStatus>
        <ResponseStatusDescription>success</ResponseStatusDescription>
    </Response>
    <ShipmentCharges>
        <TransportationCharges>
            <MonetaryValue>19.60</MonetaryValue>
        </TransportationCharges>
        <ServiceOptionsCharges>
            <MonetaryValue>3.40</MonetaryValue>
        </ServiceOptionsCharges>
        <TotalCharges>
            <MonetaryValue>23.00</MonetaryValue>
        </TotalCharges>
    </ShipmentCharges>
    <BillingWeight>
        <Weight>36.0</Weight>
    </BillingWeight>
    <ShipmentIdentificationNumber>1Z123X670299567041</ShipmentIdentificationNumber>
    <ShipmentDigest>FSDJHFSDJSHDJK47873487489KFSDJKQSDFSJDFK94238093489034K
SDFJSDFKLJFDSKFKDJFSDKJFLSDKA923809234893402KLSDFJKLSDFJDFKSJFSDKLJFDSKLJFSD
KLJ49230843920814309KLSDFJFKLSDJFDKLSJSDFKLJDKFLJDSKLJ092348349223098IJKLFJKL
FSDJFKLASDJFKAJFSDIUR897348574KJWEHRIQEWU8948348</ShipmentDigest>
</ShipmentConfirmResponse>
```

(Forward) ShipmentAcceptRequest

The ShipmentAcceptRequest message consists of two complete XML documents. The first document is an AccessRequest. The AccessRequest is immediately followed by a ShipmentAcceptRequest. When a client

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application is undergoing testing and integration, the document combination should be sent to the URL:

https://wwwcie.ups.com/ups.app/xml/ShipAccept

Once a client application is in production, the combined documents should be sent to the URL provided as part of the certification process.

The ShipmentAcceptRequest conforms to the following XML structure.

(Forward) ShipmentAcceptRequest XML Details:

ShipmentAcceptRequest
- **Request**
  - **RequestAction**::string *'ShipAccept'*
  - **TransactionReference** [optional]
    - **CustomerContext** [optional] *any valid XML content up to 512 characters long; client -supplied values in a request are returned in the corresponding response*
    - **XpciVersion**::string [optional] *current version is '1.0001'*
- **ShipmentDigest**::string *special data generated by UPS and returned in a ShipmentConfirmResponse; the data must be included without modification in the ShipmentAcceptRequest*

ShipmentAcceptRequest Example Message:

```
<?xml version="1.0" ?>
<AccessRequest xml:lang='en-US'>
    <AccessLicenseNumber>YOURACCESSLICENSENUMBER</AccessLicenseNumber>
    <UserId>YOURUSERID</UserId>
    <Password>YOURPASSWORD</Password>
</AccessRequest>
<?xml version="1.0" ?>
<ShipmentAcceptRequest>
    <Request>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <RequestAction>ShipAccept</RequestAction>
    </Request>
    <ShipmentDigest>FSDJHFSDJSHDJK47873487489KFSDJKQSDFSJDFK94238093489034K
SDFJSDFKLJFDSKFKDJFSDKJFLSDKA923809234893402KLSDFJKLSDFJDFKSJFSDKLJFDSKLJFSD
KLJ49230843920814309KLSDFJFKLSDJFDKLSJSDFKLJDKFLJDSKLJ092348349223098IJKLFJKL
FSDJFKLASDJFKAJFSDIUR897348574KJWEHRIQEWU8948348</ShipmentDigest>
</ShipmentAcceptRequest>
```

(Forward) ShipmentAcceptResponse

The ShipmentAcceptResponse message contains a single XML document that conforms to the following structure.

(Forward) ShipmentAcceptResponse XML Details:

ShipmentAcceptResponse
- **Response**
  - **TransactionReference** [optional]
    - **CustomerContext** [optional] *any valid XML content up to 512 characters long; client*

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-supplied values in a request are returned in the corresponding response
XpciVersion::string [optional] *current version is '1.0001'*
ResponseStatusCode::string *'1' (request succeeded) or '0' (request failed)*
ResponseStatusDescription::string [optional] *'Success' or 'Failure'*
Error [optional, unbounded]
ErrorSeverity::string *'TransientError' (service temporarily unavailable; retry later), 'HardError' (request cannot be processed), or 'Warning' (request processed, but client should note potential problems)*
ErrorCode::string
ErrorDescription::string [optional]
ErrorLocation [optional, unbounded]
ErrorLocationElementName::string [optional] *Xpath expression that identifies the element in error*
ErrorLocationElementReference::string [optional]
ErrorLocationAttributeName::string [optional] *name of attribute in error*
ErrorDigest::string [optional, unbounded] *contents of the element in error*
ShipmentResults [optional]
ShipmentCharges [optional] *shipment charges are always returned for shipments originating in the US or Puerto Rico*
TransportationCharges
CurrencyCode::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
MonetaryValue::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
ServiceOptionsCharges
CurrencyCode::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
MonetaryValue::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
TotalCharges
CurrencyCode::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
MonetaryValue::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
NegotiatedRates [optional] *negotiated Rates are only returned for qualified Shipper Account Numbers; eligibility is determined using the combination of UserID and the Shipper's Shipper Account Number; if the user is qualified, both Published rates and Negotiated rates are returned to the user; if the UserID and Shipper Account Number are not qualified for Negotiated rates, a warning message is returned that indicates ineligibility and only the Published rates are returned in the response*
NetSummaryCharges
GrandTotal
CurrencyCode::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
MonetaryValue::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
BillingWeight *weight used to calculate rate; may differ from actual weight when additional charges for oversize dimensions or weight apply*
UnitOfMeasurement *weight units are 'LBS' (pounds) or 'KGS' (kilograms); returned unit is same as specified in original ShipmentConfirmRequest*
Code::string
Description::string [optional]
Weight::string *up to 5 characters; up to one digit after the decimal place; weight is '0' for letters*
ShipmentIdentificationNumber::string *18 characters*
PickupRequestNumber::string [optional] *11 characters*
PackageResults [unbounded]
TrackingNumber::string *18 characters*

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- **ServiceOptionsCharges** [optional]
  - **CurrencyCode**::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
  - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
- **LabelImage** [optional]
  - **LabelImageFormat** *either GIF, SPL, ZPL or EPL2 Eltron printer image*
    - **Code**::string *valid values are 'GIF', 'EPL' 'ZPL' and 'SPL'*
    - **Description**::string [optional]
  - **GraphicImage**::string *graphic image encoded using Base64 algorithm*
  - **InternationalSignatureGraphicImage**::string [optional] *EPL format with Warsaw text and signature box; encoded using Base64 algorithm; only one image is returned for each shipment, and it is returned with the first package in the response*
  - **HTMLImage**::string [optional] *GIF image encoded using Base64 algorithm*
- **ControlLogReceipt** [optional] *included when declared value exceeds $999*
  - **ImageFormat**
    - **Code**::string *only supported format is 'PDF'*
    - **Description**::string [optional]
  - **GraphicImage**::string *graphic image encoded using Base64 algorithm*
- **Form** [optional]
  - **Code**::string *only value is '01' (all requested forms)*
  - **Description**::string [optional]
  - **Image**
    - **ImageFormat** *format of image*
      - **Code**::string *only supported format is 'PDF'*
      - **Description**::string [optional]
    - **GraphicImage**::string *graphic image encoded using Base64 algorithm*
  - **FormGroupId**::string [optional]
  - **FormGroupIdName**::string [optional]
- **CODTurnInPage** [optional]
  - **Image** *only image type supported is 'HTML'*
    - **ImageFormat** *format of image*
      - **Code**::string *only supported format is 'PDF'*
      - **Description**::string [optional]
    - **GraphicImage**::string *graphic image encoded using Base64 algorithm*

(Forward) ShipmentAcceptResponse Example Message:

```
<?xml version="1.0" ?>
<ShipmentAcceptResponse>
    <Response>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <ResponseStatus>0</ResponseStatus>
        <ResponseStatusDescription>success</ResponseStatusDescription>
    </Response>
    <ShipmentResults>
        <ShipmentCharges>
            <TransportationCharges>
                <MonetaryValue>19.60</MonetaryValue>
            </TransportationCharges>
            <ServiceOptionsCharges>
                <MonetaryValue>3.40</MonetaryValue>
            </ServiceOptionsCharges>
            <TotalCharges>
```


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```
                    <MonetaryValue>23.00</MonetaryValue>
                </TotalCharges>
            </ShipmentCharges>
            <BillingWeight>
                <Weight>36.0</Weight>
            </BillingWeight>
            <ShipmentIdentificationNumber>
                1Z123X670299567041
            </ShipmentIdentificationNumber>
            <PackageResults>
                <TrackingNumber>1Z123X670299567041</TrackingNumber>
                <ServiceOptionsCharges>
                    <MonetaryValue>1.20</MonetaryValue>
                </ServiceOptionsCharges>
                <LabelImage>
                    <LabelImageFormat>
                        <Code>GIF</Code>
                    </LabelImageFormat>
                    <GraphicImage>FSDJHSDJHJ3487EHNE9U8DY9VHRFV89SDFHFSDJHFSDIDF
HSJKDFSJKDFSJIU9GFIUGJIFDUJG9UKGLDJFDKJDGKJDFKGDJLDFKSJGKDFJDKGFDG9E0ERIJGE39
IWURE9U9ER0UW9R0UR9WEGU9URE9WGUW90U90GRUG90GERUG9REUGWERGJIOJGIODFGUI
OFDUGIOFUIGRUE090U9TERUT90RUT9EU90ERUT9ERU9EUER9TUT9R0UTE90RU9TERU90RTEU9
SDKHGJHGDFU</GraphicImage>
                    <HTMLImage>SKJJKLHGIGKHGKJHGFJGFJHDFJGHDDJFHFDJHFJHFJKDHJKFDHJ
FJDFHDFJHJDFHGJDHGDFSHJKFSDHSDFJHFJSDHJKDFHFJKSHDSKJHGFDJSJDFSKSKJJKLHGIGKHG
KJHGFJGFJHDFJGHDDJFHFDJHFJHFJKDHJKFDHJFJDFHDFJHJDFHGJDHGDFSHJKFSDHSDFJHFJSDHJ
KDFHFJKSHDSKJHGFDJSJDFSKHGJKDS</HTMLImage>
                </LabelImage>
            </PackageResults>
            <PackageResults>
                <TrackingNumber>1Z123X670292134678</TrackingNumber>
                <AccessorialCharges>
                    <MonetaryValue>2.20</MonetaryValue>
                </AccessorialCharges>
                <LabelImage>
                    <LabelImageFormat>
                        <Code>GIF</Code>
                    </LabelImageFormat>
                    <GraphicImage>895UIGJ89XCASDVIGFUISDFNKLFSDANUI43UIT34IONSDFK
HG89GUKGJNGKDJFKDJDGKJDKFSDU089REUTDRKJOEIOUTERIJREIKGRJIGOWEJIEJIEGJGRIOEJGR
IGJIODJGFIODFJSIOUDFIOGDFUGDF890ERUTRIOGTJRDIOOGJGIOSDFJGIOJGIOJIOGFUGJIOGU90E
8T9TRFIRWEU90WERU90WU90WTU90WUT09WEUTWRJGKSDFJGIOSDFJGOISDFJGIOSJSD</Grap
hicImage>
                    <HTMLImage>JDFSKAATRIOERHIOEGHNVIXCUIFGJMFDGMAN8Y89H54JMN1
MK345H8SDHFDHGJKGHFDJKGHDGKSFJAH893YTUITNGDFJSGH8935Y5RTHDDFJKHT89HTJETHW
ER8934Y89534KGNDFOJKKH893RYETFIHTRUIOEY89TY34IHDFUIHGRU9T38934UITHDIUJTHEQW
89RY8WIERHT9RI</HTMLImage>
                </LabelImage>
            </PackageResults>
        </ShipmentResults>
</ShipmentAcceptResponse>
```


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Return Shipments

Four different message types make up a complete return shipment processing procedure: ShipmentConfirmRequest, ShipmentConfirmResponse, ShipmentAcceptRequest, and ShipmentAcceptResponse.

(Return)Shipment Confirm Request

The Return ShipmentConfirmRequest message contains a single XML document that conforms to the following structure.

(Return) ShipmentConfirmRequest XML Details:

ShipmentConfirmRequest
- **Request**
  - **RequestAction**::string *'ShipConfirm'*
  - **RequestOption**::string *for ShipConfirm, either 'validate' (validate the address, which is the default) or 'nonvalidate' (don't validate the address)*
  - **TransactionReference** [optional]
    - **CustomerContext** [optional] *any valid XML content up to 512 characters long; client-supplied values in a request are returned in the corresponding response*
    - **XpciVersion**::string [optional] *current version is '1.0001'*
- **Shipment**
  - **Description**::string [optional] *up to 35 characters; required for international shipments when ShipFrom and ShipTo countries differ and the packaging type is not UPS Letter, or when ShipFrom and or ShipTo countries are not in the European Union, or when the ShipFrom and ShipTo countries are both in the European Union and the shipment's service type is not UPS Standard*
  - **ReturnService**
    - **Code**::string *'2' (UPS Print and Mail), '3' (UPS Return Service 1-Attempt), '5' (UPS Return Service 3-Attempt), '8' (UPS Electronic Return Label), or '9' (UPS Print Return Label)*
  - **DocumentsOnlyIndicator** [optional] *if present, shipment contains only documents with no commercial value*
  - **Shipper**
    - **Name**::string *up to 35 characters*
    - **AttentionName**::string [optional] *up to 35 characters; required for international shipments and next day air early AM service*
    - **ShipperNumber**::string *6-digit UPS account number*
    - **TaxIdentificationNumber**::string [optional] *required for SED forms with no ShipFrom information; up to 15 characters*
    - **PhoneNumber** [optional] *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
      - **StructuredPhoneNumber** [optional]
        - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1'*
        - **PhoneDialPlanNumber**::string *up to 15 characters*
        - **PhoneLineNumber**::string *up to 15 characters*
        - **PhoneExtension**::string [optional] *up to 4 characters*
    - **FaxNumber**::string [optional] *up to 15 digits*
    - **EMailAddress**::string [optional] *up to 50 characters*
    - **Address** [optional] *the address must indicate a country which is a valid destination country for the service*
      - **AddressLine1**::string *up to 35 characters*

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- **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
- **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
- **City**::string *up to 30 characters*
- **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
- **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
- **CountryCode**::string *two-character country abbreviation; see appendix for details*

ShipTo *return to address or destination of shipment*

- **CompanyName**::string *up to 35 characters*
- **AttentionName**::string [optional] *up to 35 characters; required for international shipments and next day air early AM service*
- **TaxIdentificationNumber**::string [optional] *up to 15 characters*
- **PhoneNumber** [optional] *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
  - **StructuredPhoneNumber** [optional]
    - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1'*
    - **PhoneDialPlanNumber**::string *up to 15 characters*
    - **PhoneLineNumber**::string *up to 15 characters*
    - **PhoneExtension**::string [optional] *up to 4 characters*
- **FaxNumber**::string [optional] *up to 15 digits*
- **EMailAddress**::string [optional] *up to 50 characters*
- **Address**
  - **AddressLine1**::string *up to 35 characters*
  - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
  - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
  - **City**::string *up to 30 characters*
  - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada. (NOTE: for Ireland use the 5 character county abbreviation)*
  - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
  - **CountryCode**::string *two-character country abbreviation; see appendix for details*
  - **ResidentialAddress** *if present, address is for a residence*
- **LocationID**::string [optional] *3-10 characters; restricted to numbers or upper case letters*

ShipFrom *pickup from address. The shipment will be rated from this origin address to the destination ship to/return to address.*

- **CompanyName**::string *up to 35 characters*
- **AttentionName**::string [optional] *up to 35 characters; required for international shipments and next day air early AM service*
- **TaxIdentificationNumber**::string [optional] *required for SED forms; up to 15 characters*
- **PhoneNumber** [optional] *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
  - **StructuredPhoneNumber** [optional]
    - **PhoneCountryCode**::string [optional] *up to 3 characters; defaults to '1'*
    - **PhoneDialPlanNumber**::string *up to 15 characters*
    - **PhoneLineNumber**::string *up to 15 characters*
    - **PhoneExtension**::string [optional] *up to 4 characters*
- **FaxNumber**::string [optional] *up to 15 digits*
- **Address**
  - **AddressLine1**::string *up to 35 characters*
  - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or*

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floor information
- **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
- **City**::string *up to 30 characters*
- **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada. (NOTE: for Ireland use the 5 character county abbreviation)*
- **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
- **CountryCode**::string *two-character country abbreviation; see appendix for details*

SoldTo [optional] *required for invoice and NAFTA CO forms*
- **Option**::string [optional] *'01' (unknown) or '02' (various)*
- **CompanyName**::string [optional] *applies to invoice form or NAFTA CO form without a SoldTo option value; in both cases it is required; up to 35 characters*
- **AttentionName**::string [optional] *applies to invoice form or NAFTA CO form without a SoldTo option value; in both cases it is required; up to 35 characters; required for international shipments and next day air early AM service*
- **TaxIdentificationNumber**::string [optional] *required unless Option is included; up to 15 characters*
- **PhoneNumber** [optional] *may either be numeric digits as a character stream or a structured element, but not both; phone numbers are required for international destinations*
- **Address**
  - **AddressLine1**::string *up to 35 characters*
  - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
  - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
  - **City**::string *up to 30 characters*
  - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
  - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
  - **CountryCode**::string *two-character country abbreviation; see appendix for details*

PaymentInformation [optional] *either PaymentInformation or ItemizedPaymentInformation must be included, but not both*
- (1) **Prepaid** *required for BillShipper*
  - **BillShipper** *billing information for shipper*
    - **AccountNumber**::string *must match the ShipperNumber for the shipper*
- (2) **BillThirdParty** *required if third party is billed for all or part of charges*
  - **BillThirdPartyShipper** *billing information for third party to be billed for all or part of charges*
    - **AccountNumber**::string *for US, Puerto Rican and Canadian accounts, the account must be either a daily pickup account, an occasional account, a customer B.I.N account, or a drop shipper account; all other accounts must be either a daily pickup account, an occasional account, a drop shipper account, or a non -shipping account*
    - **ThirdParty**
      - **Address**
        - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
        - **CountryCode**::string *two-character country abbreviation; see appendix for details*
- (3) **ConsigneeBilled**::string *if present, consignee is billed for shipment; element should be empty*

ItemizedPaymentInformation [optional] *either PaymentInformation or ItemizedPaymentInformation must be included, but not both*
- **ShipmentCharge** [as many as 2] *if duty and tax charges apply to a shipment and no*

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payer is specified, UPS will bill the receiver
- **Type**::string *'01' (transportation) or '02' (duties and taxes); transportation charges are required; duties and taxes are optional and only not valid if origin and destination are the same, US and Puerto Rico, or within the European Union when GoodsNotInFreeCirculation is present*
- (1) **BillShipper** *billing information for shipper*
  - **AccountNumber**::string *must match the ShipperNumber for the shipper*
- (2) **BillReceiver** *postal code in BillReceiver's address must be the same as the postal code for the UPS account's pickup address; billing information for recipient; required if recipient is billed for all or part of charges*
  - **AccountNumber**::string
  - **Address** [optional]
    - **PostalCode**::string *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
- (3) **BillThirdParty** *postal code in ThirdParty's address must be the same as the postal code for the UPS account's pickup address; required if third party is billed for all or part of charges*
  - (1) **BillThirdPartyShipper** *billing information for third party to be billed for all or part of charges*
    - **AccountNumber**::string *for US, Puerto Rican and Canadian accounts, the account must be either a daily pickup account, an occasional account, a customer B.I.N account, or a drop shipper account; all other accounts must be either a daily pickup account, an occasional account, a drop shipper account, or a non-shipping account*
    - **ThirdParty**
      - **Address**
        - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
        - **CountryCode**::string *two-character country abbreviation; see appendix for details*
  - (2) **BillThirdPartyConsignee** *billing information for third party consignee to be billed for all or part of charges*
    - **AccountNumber**::string
    - **ThirdParty**
      - **Address**
        - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico;up to 9 characters; US 9-digit zip codes may also include a '-' separator*
        - **CountryCode**::string *two-character country abbreviation; see appendix for details*
- (4) **ConsigneeBilled**::string *if present, consignee is billed; only valid for transportation charges and US or Puerto Rico origin and destination; should be empty*
- **SplitDutyVATIndicator** [optional] *only valid for UPS daily pickup or occasional accounts; if present, party which pays transportation charges will also pay any duties that apply to the shipment; party specified for Duties and Taxes will pay the VAT (Value-Added Tax) only*

- **RateInformation** [optional]
  - **NegotiatedRatesIndicator** [optional] *if present, negotiated rates are requested; negotiated rates are only returned for qualified Shipper Account Numbers; eligibility is determined by checking both the UserID and the shipper's Shipper Account Number; if the user is qualified, both Published rates and Negotiated rates are returned to the user;if the UserID and Shipper Account Number are not qualified for Negotiated rates, a warning message is returned that indicates ineligibility and only the Published rates are returned in the response*
- **ReferenceNumber** [optional, unbounded] *for shipments, up to two reference number codes and values are supported*

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- **BarCodeIndicator** [optional] *only one shipment-level or package-level reference number can be bar coded per shipment; reference number must be no longer than 14 characters or 24 numeric digits and cannot contain spaces; if present, bar code for reference number should be printed on label*
- **Code**::string *2 characters; for packages, must be within the US or within Puerto Rico; for shipments, cannot be within the US or within Puerto Rico see appendix for details*
- **Value**::string *up to 35 characters; not valid for shipments within the US or within Puerto Rico*

Service
- **Code**::string *UPS shipment service code. See appendix for details*
- **Description**::string [optional]

ShipmentServiceOptions [optional]
- **Notification** [optional, as many as 3]
  - **NotificationCode**::string *'2' (shipment return notification, 1-attempt or 3-attempt only)or '3' (package return notification)*
  - **EMailMessage**
    - **EMailAddress**::string [as many as 2] *up to 50 characters*
    - **UndeliverableEMailAddress**::string [optional] *address for forwarding messages which cannot be delivered*
    - **FromEMailAddress**::string [optional] *Reply-To address for message (actual From address will be pkginfo@ups.com)*
    - **FromName**::string [optional] *defaults to shipper name*
    - **Memo**::string [optional] *text of message; text of email message*
    - **Subject**::string [optional] *up to 35 characters*
    - **SubjectCode**::string [optional] *'01' (shipment reference number 1), '02' (shipment reference number 2), '03' (package reference number 1), '04' (package reference number 2), '08' (subject text, return notification only)*
- **LabelDelivery** [optional] *only for electronic return label return service*
  - **LabelLinkIndicator** [optional] *if present, URLs for label recovery and receipt recovery should be provided*
  - **EMailMessage** [optional]
    - **EMailAddress**::string [as many as 2] *up to 50 characters*
    - **UndeliverableEMailAddress**::string [optional] *address for forwarding messages which cannot be delivered*
    - **FromEMailAddress**::string [optional] *Reply-To address for message (actual From address will be pkginfo@ups.com)*
    - **FromName**::string [optional] *defaults to shipper name*
    - **Memo**::string [optional] *text of message; text of email message*
    - **Subject**::string [optional] *up to 35 characters*
    - **SubjectCode**::string [optional] *'01' (shipment reference number 1), '02' (shipment reference number 2), '03' (package reference number 1), '04' (package reference number 2), '08' (subject text, return notification only)*
- **InternationalForms** [optional] *see separate subsection for International Forms components*

Package
- **Description**::string
- **PackagingType** [optional]
  - **Code**::string *'01' (UPS letter), '02' (customer supplied package), '03' (tube), '04' (PAK), '21' (UPS express box), '2a' (UPS small express box), '2b' (UPS medium express box), '2c' (UPS large express box);), '24' (UPS 25KG box, forward shipment only), '25' (UPS 10KG box, forward shipment only), '30' (pallet, forward shipment only) packaging type must be valid for all the following: ShipTo country, ShipFrom country, a shipment going from ShipTo country to ShipFrom country, all accessorials at both the shipment and package level, and the shipment service type*
  - **Description**::string [optional]
- **Dimensions** [optional] *length + 2 * (width + height) must be less than or equal to 130*

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IN or 330 CM; dimensions required for shipments within the UK or within Poland
- **UnitOfMeasurement** [optional]
  - **Code**::string *dimension units are 'IN' (inches) or 'CM' (centimeters); can also use '00' for metric or '01' for English; normally defaults to the units common in the origin country, but Canadian shipments must specify a unit*
  - **Description**::string [optional]
- **Length**::string *up to 9 characters; largest dimension, rounded up to whole number; maximum of 108in or 270cm*
- **Width**::string *up to 9 characters; rounded up to whole number*
- **Height**::string *up to 9 characters; rounded up to whole number*

PackageWeight [optional]
- **UnitOfMeasurement** [optional]
  - **Code**::string *weight units are 'LBS' (pounds) or 'KGS' (kilograms); can also use '00' for metric or '01' for English; normally defaults to the units common in the origin country, but Canadian shipments must specify a unit*
  - **Description**::string [optional]
- **Weight**::string *up to 5 characters; up to one digit after the decimal place*

LargePackageIndicator::string [optional]

ReferenceNumber [optional, unbounded] *for packages, up to two reference number codes and values are supported*
- **BarCodeIndicator** [optional] *only one shipment-level or package-level reference number can be bar coded per shipment; reference number must be no longer than 14 characters or 24 numeric digits and cannot contain spaces; if present, bar code for reference number should be printed on label*
- **Code**::string *2 characters; for packages, must be within the US or within Puerto Rico; for shipments, cannot be within the US or within Puerto Rico see appendix for details*
- **Value**::string *up to 35 characters; not valid for shipments within the US or within Puerto Rico*

AdditionalHandling [optional] *if present, additional handling is required*

PackageServiceOptions [optional]
- **InsuredValue** [optional] *(NOTE: Type and Code are required for shipper Declared Value).* For RS3 the declared/insured value can be up to 50K USD max, the other return service options can only be a maximum of 999
  - **Type**::string [optional] *3-letter currency abbreviation; defaults to the*
    - **TypeCode**::string [optional] *2-character code: values are '01' (EVS Declared Value) or '02' (DVS Shipper Declared Value). Defaults to '01'*
    - **Description**:: string [optional] *up to 35 characters*
  - **CurrencyCode**::string [optional] *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
  - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
- **Notification** [optional]
  - **NotificationCode**::string *'2' (shipment return notification, 1-attempt or 3-attempt only)or '3' (package return notification)*
  - **EMailMessage**
    - **EMailAddress**::string [as many as 2] *up to 50 characters*
    - **UndeliverableEMailAddress**::string [optional] *address for forwarding messages which cannot be delivered*
    - **FromEMailAddress**::string [optional] *Reply-To address for message (actual From address will be pkginfo@ups.com)*
    - **FromName**::string [optional] *defaults to shipper name*
    - **Memo**::string [optional] *text of message; text of email message*
    - **Subject**::string [optional] *up to 35 characters*
    - **SubjectCode**::string [optional] *'01' (shipment reference number 1), '02' (shipment reference number 2), '03' (package reference number 1), '04' (package reference number 2), '08' (subject text, return notification only)*

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- **LabelSpecification** [optional] *required for Print Return Label (PRL) service; default values are GIF format and Mozilla/4.5 user agent*
  - **LabelPrintMethod** [optional]
    - **Code**::string *must be 'GIF'*
    - **Description**::string [optional]
  - **HTTPUserAgent**::string [optional] *Supported user agent values are 'Mozilla/7.0', 'Mozilla/6.0', 'Mozilla/5.0', 'Mozilla/4.9', 'Mozilla/4.8', 'Mozilla/4.7', 'Mozilla/4.6', 'Mozilla/4.5', 'Mozilla/4.4', 'Mozilla/4.3', 'Mozilla/4.2', 'Mozilla/4.1', 'Mozilla/4.09', 'Mozilla/4.08', 'Mozilla/4.07', 'Mozilla/4.06', 'Mozilla/4.05', 'MSIE 4.5', 'MSIE 5.0', 'MSIE 5.5', 'MSIE 6.0', and 'MSIE 7.0'; default value is 'Mozilla/4.5'*
  - **LabelStockSize** [optional] *only applies to EPL, ZPL and SPL labels ; valid values are 4x6 or 4x8*
    - **UnitOfMeasurement** [optional]
      - **Description**::string [optional]
    - **Height**::string *up to 9 characters; rounded up to whole number*
    - **Width**::string *up to 9 characters; rounded up to whole number*
  - **LabelImageFormat** *either GIF or EPL2 Eltron printer image*
    - **Code**::string *valid values are 'GIF', 'EPL' 'ZPL' and 'SPL'*
    - **Description**::string [optional]

(Return) ShipmentConfirmRequest Example Message:

```
<?xml version="1.0" ?>
<AccessRequest xml:lang='en-US'>
    <AccessLicenseNumber>YOURACCESSLICENSENUMBER</AccessLicenseNumber>
    <UserId>YOURUSERID</UserId>
    <Password>YOURPASSWORD</Password>
</AccessRequest>
<?xml version="1.0" ?>
<ShipmentConfirmRequest>
    <Request>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <RequestAction>ShipConfirm</RequestAction>
        <RequestOption>nonvalidate</RequestOption>
    </Request>
    <Shipment>
        <ReturnService>
            <Code>9</Code>
        </ReturnService>
        <Shipper>
            <Name>Merchant</Name>
            <PhoneNumber>8005551212</PhoneNumber>
            <ShipperNumber>abc123</ShipperNumber>
            <Address>
                <AddressLine1>11 Merchant Lane</AddressLine1>
                <City>Atlanta</City>
                <StateProvinceCode>GA</StateProvinceCode>
                <PostalCode>30188</PostalCode>
                <CountryCode>US</CountryCode>
            </Address>
        </Shipper>
        <ShipTo>
            <CompanyName>Vendor</CompanyName>
            <AttentionName>ContactName</AttentionName>
```


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```
            <PhoneNumber>8009190000</PhoneNumber>
            <Address>
                <AddressLine1>33 Vendor Lane</AddressLine1>
                <City>Atlanta</City>
                <StateProvinceCode>GA</StateProvinceCode>
                <PostalCode>30018</PostalCode>
                <CountryCode>US</CountryCode>
            </Address>
        </ShipTo>
        <ShipFrom>
            <CompanyName>Jane Doe</CompanyName>
            <PhoneNumber>5551414</PhoneNumber>
            <Address>
                <AddressLine1>2001 Consumer Drive</AddressLine1>
                <City>Atlanta</City>
                <StateProvinceCode>GA</StateProvinceCode>
                <PostalCode>30010</PostalCode>
                <CountryCode>US</CountryCode>
            </Address>
        </ShipFrom>
        <Service>
            <Code>01</Code>
        </Service>
        <PaymentInformation>
            <Prepaid>
                <BillShipper>
                    <AccountNumber>123456</AccountNumber>
                </BillShipper>
            </Prepaid>
        </PaymentInformation>
        <Package>
            <PackageServiceOptions>
                <Notification>
                    <NotificationCode>2</NotificationCode>
                    <EMailMessage>
                        <EMailAddress>Vendor@vendor.com</EMailAddress>
                        <Memo />
                        <Subject>Shipment ID</Subject>
                        <FromEMailAddress>Shipper@shipper.com</FromEMailAddress>
                        <FromName>Merchant</FromName>
                        <UndeliverableEMailAddress>
                            Shipper@shipper.com
                        </UndeliverableEMailAddress>
                    </EMailMessage>
                </Notification>
            </PackageServiceOptions>
            <AdditionalHandling />
            <ReferenceNumber>
                <Code>RZ</Code>
                <Value>0123456789</Value>
            </ReferenceNumber>
            <Description>Letter to be returned</Description>
            <PackagingType>
                <Code>01</Code>
            </PackagingType>
        </Package>
    </Shipment>
```


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```
    <LabelSpecification>
        <LabelPrintMethod>
            <Code>GIF</Code>
        </LabelPrintMethod>
        <HTTPUserAgent>Mozilla/4.5</HTTPUserAgent>
        <LabelImageFormat>
            <Code>GIF</Code>
        </LabelImageFormat>
    </LabelSpecification>
</ShipmentConfirmRequest>
```

(Return) Shipment Confirm Response

The Return ShipmentConfirmResponse message contains a single XML document that conforms to the following structure.

(Return) ShipmentConfirmResponse XML Details:

ShipmentConfirmResponse
- **Response**
  - **TransactionReference** [optional]
    - **CustomerContext** [optional] *any valid XML content up to 512 characters long; client -supplied values in a request are returned in the corresponding response*
    - **XpciVersion**::string [optional] *current version is '1.0001'*
  - **ResponseStatusCode**::string *'1' (request succeeded) or '0' (request failed)*
  - **ResponseStatusDescription**::string [optional] *'Success' or 'Failure'*
  - **Error** [optional, unbounded]
    - **ErrorSeverity**::string *'TransientError' (service temporarily unavailable; retry later), 'HardError' (request cannot be processed), or 'Warning' (request processed, but client should note potential problems)*
    - **ErrorCode**::string
    - **ErrorDescription**::string [optional]
    - **ErrorLocation** [optional, unbounded]
      - **ErrorLocationElementName**::string [optional] *Xpath expression that identifies the element in error*
      - **ErrorLocationElementReference**::string [optional]
      - **ErrorLocationAttributeName**::string [optional] *name of attribute in error*
    - **ErrorDigest**::string [optional, unbounded] *contents of the element in error*
- **ShipmentCharges** [optional]
  - **TransportationCharges**
    - **CurrencyCode**::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **ServiceOptionsCharges**
    - **CurrencyCode**::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **TotalCharges**
    - **CurrencyCode**::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point;*

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must use period (.) for fractional values

└─**NegotiatedRates** *negotiated Rates are only returned for qualified Shipper Account Numbers; eligibility is determined using the combination of UserID and the Shipper's Shipper Account Number; if the user is qualified, both Published rates and Negotiated rates are returned to the user; if the UserID and Shipper Account Number are not qualified for Negotiated rates, a warning message is returned that indicates ineligibility and only the Published rates are returned in the response*

└─**NetSummaryCharges**

└─**GrandTotal**

├─**CurrencyCode**::string *3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*

└─**MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*

├─**BillingWeight** *weight used to calculate rate; may differ from actual weight when additional charges for oversize dimensions or weight apply*

├─**UnitOfMeasurement** *same as in ShipmentConfirmRequest*

├─**Code**::string

└─**Description**::string [optional]

└─**Weight**::string *up to 5 characters; up to one digit after the decimal place; '0' used for letters*

├─**ShipmentIdentificationNumber**::string *18 characters*

└─**ShipmentDigest**::string *special data that UPS generates to uniquely identify the shipment; this information must be returned without modification in a ShipmentAcceptRequest*

(Return) ShipmentConfirmResponse Example Message:

```
<?xml version="1.0" ?>ShipmentAcceptRequest
<ShipmentConfirmResponse>
    <Response>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <ResponseStatus>0</ResponseStatus>
        <ResponseStatusDescription>success</ResponseStatusDescription>
    </Response>
    <ShipmentCharges>
        <TransportationCharges>
            <MonetaryValue>19.60</MonetaryValue>
        </TransportationCharges>
        <ServiceOptionsCharges>
            <MonetaryValue>3.40</MonetaryValue>
        </ServiceOptionsCharges>
        <TotalCharges>
            <MonetaryValue>23.00</MonetaryValue>
        </TotalCharges>
    </ShipmentCharges>
    <BillingWeight>
        <Weight>36.0</Weight>
    </BillingWeight>
    <ShipmentIdentificationNumber>1Z123X670299567041</ShipmentIdentificationNumber>
    <ShipmentDigest>FSDJHFSDJSHDJK47873487489KFSDJKQSDFSJDFK94238093489034K
SDFJSDFKLJFDSKFKDJFSDKJFLSDKA923809234893402KLSDFJKLSDFJDFKSJFSDKLJFDSKLJFSD
KLJ49230843920814309KLSDFJFKLSDJFDKLSJSDFKLJDKFLJDSKLJ092348349223098IJKLFJKL
FSDJFKLASDJFKAJFSDIUR897348574KJWEHRIQEWU8948348</ShipmentDigest>
</ShipmentConfirmResponse>
```


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(Return) ShipmentAcceptRequest

The ShipmentAcceptRequest message consists of two complete XML documents. The first document is an AccessRequest. The AccessRequest is immediately followed by a ShipmentAcceptRequest. When a client application is undergoing testing and integration, the document combination should be sent to the URL:

https://wwwcie.ups.com/ups.app/xml/ShipAccept

Once a client application is in production, the combined documents should be sent to the URL provided as part of the certification process.

The ShipmentAcceptRequest document in the request must conform to the following XML structure.

(Return) ShipmentAcceptRequest XML Details:

```
ShipmentAcceptRequest
├─Request
│  ├─RequestAction::string   'ShipAccept'
│  └─TransactionReference [optional]
│     ├─CustomerContext [optional]   any valid XML content up to 512 characters long; client
│     │     -supplied values in a request are returned in the corresponding response
│     └─XpciVersion::string [optional]   current version is '1.0001'
└─ShipmentDigest::string   special data generated by UPS and returned in a
      ShipmentConfirmResponse; the data must be included without modification in the
      ShipmentAcceptRequest
```

(Return) ShipmentAcceptRequest Example Message:

```
<?xml version="1.0" ?>
<AccessRequest xml:lang='en-US'>
    <AccessLicenseNumber>YOURACCESSLICENSENUMBER</AccessLicenseNumber>
    <UserId>YOURUSERID</UserId>
    <Password>YOURPASSWORD</Password>
</AccessRequest>
<?xml version="1.0" ?>
<ShipmentAcceptRequest>
    <Request>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <RequestAction>ShipAccept</RequestAction>
    </Request>
    <ShipmentDigest>FSDJHFSDJSHDJK47873487489KFSDJKQSDFSJDFK94238093489034K
SDFJSDFKLJFDSKFKDJFSDKJFLSDKA923809234893402KLSDFJKLSDFJDFKSJFSDKLJFDSKLJFSD
KLJ49230843920814309KLSDFJFKLSDJFDKLSJSDFKLJDKFLJDSKLJ092348349223098IJKLFJKL
FSDJFKLASDJFKAJFSDIUR897348574KJWEHRIQEWU8948348</ShipmentDigest>
</ShipmentAcceptRequest>
```


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(Return) ShipmentAcceptResponse

The ShipmentAcceptResponse message contains a single XML document that conforms to the following structure.

Return ShipmentAcceptResponse XML Details:

ShipmentAcceptResponse
- **Response**
  - **TransactionReference** [optional]
    - **CustomerContext** [optional] *any valid XML content up to 512 characters long; client -supplied values in a request are returned in the corresponding response*
    - **XpciVersion**::string [optional] *current version is '1.0001'*
  - **ResponseStatusCode**::string *'1' (request succeeded) or '0' (request failed)*
  - **ResponseStatusDescription**::string [optional] *'Success' or 'Failure'*
  - **Error** [optional, unbounded]
    - **ErrorSeverity**::string *'TransientError' (service temporarily unavailable; retry later), 'HardError' (request cannot be processed), or 'Warning' (request processed, but client should note potential problems)*
    - **ErrorCode**::string
    - **ErrorDescription**::string [optional]
    - **ErrorLocation** [optional, unbounded]
      - **ErrorLocationElementName**::string [optional] *Xpath expression that identifies the element in error*
      - **ErrorLocationElementReference**::string [optional]
      - **ErrorLocationAttributeName**::string [optional] *name of attribute in error*
    - **ErrorDigest**::string [optional, unbounded] *contents of the element in error*
- **ShipmentResults** [optional]
  - **ShipmentCharges** [optional] *shipment charges are always returned for shipments originating in the US or Puerto Rico*
    - **TransportationCharges**
      - **CurrencyCode**::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
      - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
    - **ServiceOptionsCharges**
      - **CurrencyCode**::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
      - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
    - **TotalCharges**
      - **CurrencyCode**::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
      - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **NegotiatedRates** [optional] *negotiated Rates are only returned for qualified Shipper Account Numbers; eligibility is determined using the combination of UserID and the Shipper's Shipper Account Number; if the user is qualified, both Published rates and Negotiated rates are returned to the user; if the UserID and Shipper Account Number are not qualified for Negotiated rates, a warning message is returned that indicates ineligibility and only the Published rates are returned in the response*
    - **NetSummaryCharges**
      - **GrandTotal**
        - **CurrencyCode**::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
        - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after*

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decimal point; must use period (.) for fractional values
- **BillingWeight** *weight used to calculate rate; may differ from actual weight when additional charges for oversize dimensions or weight apply*
  - **UnitOfMeasurement** *weight units are 'LBS' (pounds) or 'KGS' (kilograms); returned unit is same as specified in original ShipmentConfirmRequest*
    - **Code**::string
    - **Description**::string [optional]
  - **Weight**::string *up to 5 characters; up to one digit after the decimal place; weight is '0' for letters*
- **ShipmentIdentificationNumber**::string *18 characters*
- **PickupRequestNumber**::string [optional] *11 characters*
- **PackageResults** [unbounded]
  - **TrackingNumber**::string *18 characters*
  - **ServiceOptionsCharges** [optional]
    - **CurrencyCode**::string *3-letter currency abbreviation; currency returned is same specified in original ShipmentConfirmRequest; see appendix for details*
    - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **LabelImage** [optional]
    - **LabelImageFormat** *either GIF, SPL, ZPL or EPL2 Eltron printer image*
      - **Code**::string *valid values are 'GIF', 'EPL' 'ZPL' and 'SPL'*
      - **Description**::string [optional]
    - **GraphicImage**::string *graphic image encoded using Base64 algorithm*
    - **InternationalSignatureGraphicImage**::string [optional] *EPL format with Warsaw text and signature box; encoded using Base64 algorithm; only one image is returned for each shipment, and it is returned with the first package in the response*
    - **HTMLImage**::string [optional] *GIF image encoded using Base64 algorithm*
    - **PDF417**::string [optional] *PDF-417 barcode*
    - **URL**::string [optional]
  - **Receipt** [optional] *only available for print and mail labels, return service (1 attempt), and return service (3 attempts)*
    - **Image** [optional]
      - **ImageFormat** *format of image (GIF, JPEG, etc.)*
        - **Code**::string
        - **Description**::string [optional]
      - **GraphicImage**::string *graphic image encoded using Base64 algorithm*
    - **URL**::string [optional]
- **Form** [optional]
  - **Code**::string *only value is '01' (all requested forms)*
  - **Description**::string [optional]
  - **Image** *only supported format is 'PDF'*
    - **ImageFormat** *format of image (GIF, JPEG, etc.)*
      - **Code**::string
      - **Description**::string [optional]
    - **GraphicImage**::string *graphic image encoded using Base64 algorithm*
  - **FormGroupId**::string [optional]
  - **FormGroupIdName**::string [optional]

ShipmentAcceptResponse Example Message:

```
<?xml version="1.0" ?>
<ShipmentAcceptResponse>
    <Response>
        <TransactionReference>
            <CustomerContext>guidlikesubstance</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <ResponseStatus>0</ResponseStatus>
        <ResponseStatusDescription>success</ResponseStatusDescription>
```


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```
    </Response>
    <ShipmentResults>
        <ShipmentCharges>
            <TransportationCharges>
                <MonetaryValue>19.60</MonetaryValue>
            </TransportationCharges>
            <ServiceOptionsCharges>
                <MonetaryValue>3.40</MonetaryValue>
            </ServiceOptionsCharges>
            <TotalCharges>
                <MonetaryValue>23.00</MonetaryValue>
            </TotalCharges>
        </ShipmentCharges>
        <BillingWeight>
            <Weight>36.0</Weight>
        </BillingWeight>
        <ShipmentIdentificationNumber>
            1Z123X670299567041
        </ShipmentIdentificationNumber>
        <PackageResults>
            <TrackingNumber>1Z123X670292134678</TrackingNumber>
            <ServiceOptionsCharges>
                <MonetaryValue>2.20</MonetaryValue>
            </ServiceOptionsCharges>
        </PackageResults>
    </ShipmentResults>
</ShipmentAcceptResponse>
```

Cancelling Shipments

UPS OnLine Tools use a two-message exchange to cancel a shipment. Those messages are VoidShipmentRequest and VoidShipmentResponse.

VoidShipmentRequest

The VoidShipmentRequest message consists of two complete XML documents. The first document is an AccessRequest. The AccessRequest is immediately followed by a VoidShipmentRequest. When a client application is undergoing testing and integration, the document combination should be sent to the URL:

https://wwwcie.ups.com/ups.app/xml/Void

Once a client application is in production, the combined documents should be sent to the URL provided as part of the certification process.

The VoidShipmentRequest document in the request must conform to the following XML structure.

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VoidShipmentRequest XML Details:

```
VoidShipmentRequest
├─Request
│  ├─RequestAction::string   'Void'
│  └─TransactionReference [optional]
│     ├─CustomerContext [optional]   any valid XML content up to 512 characters long; client
│     │     -supplied values in a request are returned in the corresponding response
│     └─XpciVersion::string [optional]   current version is '1.0001'
└─ExpandedVoidShipment
   ├─ShipmentIdentificationNumber::string   18 characters
   └─TrackingNumber::string [optional, unbounded]   18 characters
```

VoidShipmentRequest Example Message:

```
<?xml version="1.0" ?>
<AccessRequest xml:lang='en-US'>
    <AccessLicenseNumber>YOURACCESSLICENSENUMBER</AccessLicenseNumber>
    <UserId>YOURUSERID</UserId>
    <Password>YOURPASSWORD</Password>
</AccessRequest>
<?xml version="1.0" encoding="UTF-8" ?>
<VoidShipmentRequest>
    <Request>
        <TransactionReference>
            <CustomerContext>Customer Transaction ID</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <RequestAction>Void</RequestAction>
        <RequestOption />
    </Request>
    <ExpandedVoidShipment>
        <ShipmentIdentificationNumber>
            1Z12345E2318693258
        </ShipmentIdentificationNumber>
        <TrackingNumber>1Z12345E0390819985</TrackingNumber>
        <TrackingNumber>1Z12345E0193078536</TrackingNumber>
    </ExpandedVoidShipment>
</VoidShipmentRequest>
```

VoidShipmentResponse

The VoidShipmentResponse message contains a single XML document that conforms to the following structure.

VoidShipmentResponse XML Details:

```
VoidShipmentResponse
├─Response
│  ├─TransactionReference [optional]
│  │  ├─CustomerContext [optional]   any valid XML content up to 512 characters long; client
```

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-supplied values in a request are returned in the corresponding response
XpciVersion::string [optional] *current version is '1.0001'*
ResponseStatusCode::string *'1' (request succeeded) or '0' (request failed)*
ResponseStatusDescription::string [optional] *'Success' or 'Failure'*
Error [optional, unbounded]
ErrorSeverity::string *'TransientError' (service temporarily unavailable; retry later), 'HardError' (request cannot be processed), or 'Warning' (request processed, but client should note potential problems)*
ErrorCode::string
ErrorDescription::string [optional]
ErrorLocation [optional, unbounded]
ErrorLocationElementName::string [optional] *Xpath expression that identifies the element in error*
ErrorLocationElementReference::string [optional]
ErrorLocationAttributeName::string [optional] *name of attribute in error*
ErrorDigest::string [optional, unbounded] *contents of the element in error*
Status
StatusType *'1' (success) or '0' (failure)*
Code::string values are *'1' (success) or '0' (failure)*
Description::string [optional]
StatusCode [optional] *'0' (failure), '1' (success), or '2' (partial void)*
Code::string values are *'2' (partial void), '1' (success) or '0' (failure)*
Description::string [optional]
PackageLevelResults [optional, unbounded]
TrackingNumber::string
StatusCode *'0' (failure) or '1' (success)*
Code::string values are *'1' (success) or '0' (failure)*
Description::string [optional]

VoidShipmentResponse Example Message:

```
<?xml version="1.0" ?>
<VoidShipmentResponse>
    <Response>
        <TransactionReference>
            <CustomerContext>Customer Transaction ID</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <ResponseStatusCode>1</ResponseStatusCode>
        <ResponseStatusDescription>Success</ResponseStatusDescription>
    </Response>
    <Status>
        <StatusType>
            <Code>1</Code>
            <Description>Success</Description>
        </StatusType>
        <StatusCode>
            <Code>1</Code>
            <Description>Success</Description>
        </StatusCode>
    </Status>
</VoidShipmentResponse>
```

International Forms

The InternationalForms element may be part of ShipmentConfirmRequest messages for both forward and return shipments. When the element is

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present, the client application requests UPS to prepare international forms, including Certificate of Origin (CO), Invoice, North American Free Trade Agreement Certificate of Origin (NAFTA CO), or Shipper's Export Declaration (SED). The complete components of this element follow the structure below.

Note: When creating paperless invoices refer to Appendix I: Countries that Accept Paperless invoices. (Page 107).

Shipment Confirm International Forms

The ShipmentConfirmResponse message contains a single XML document that conforms to the following structure.

InternationalForms XML Details:

InternationalForms
- **FormType**::string [as many as 4] *'1' (invoice... is also valid for return shipments e), '2' (shipper's export declaration), '3' (certificate of origin), or '4' (North American Free Trade Agreement certificate of origin)*
- **SEDFilingOption**::string [optional] *if present, shipper is filing SED; must be '01'*
- **Contacts** [optional] *required for NAFTA CO and Invoice; may also be included with SED*
  - **ForwardAgent** [optional] *applies to SED only; party acting as agent in trans-shipment to destination country*
    - **CompanyName**::string [optional] *up to 35 characters*
    - **TaxIdentificationNumber**::string [optional] *up to 15 characters*
    - **Address** [optional]
      - **AddressLine1**::string *up to 35 characters*
      - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
      - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
      - **City**::string *up to 30 characters*
      - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
      - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
      - **CountryCode**::string *two-character country abbreviation; see appendix for details*
  - **UltimateConsignee** [optional] *required for SED and only applies to SED*
    - **CompanyName**::string [optional] *up to 35 characters*
    - **Address** [optional]
      - **AddressLine1**::string *up to 35 characters*
      - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
      - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
      - **City**::string *up to 30 characters*
      - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
      - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
      - **CountryCode**::string *two-character country abbreviation; see appendix for details*

❶ ❷ ❸ ❹ ❺ ❻ ❼

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❶ ❷ ❸ ❹ ❺ ❻ ❼

- **IntermediateConsignee** [optional] *applies to SED only*
  - **CompanyName**::string [optional] *up to 35 characters*
  - **Address** [optional]
    - **AddressLine1**::string *up to 35 characters*
    - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
    - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
    - **City**::string *up to 30 characters*
    - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
    - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
    - **CountryCode**::string *two-character country abbreviation; see appendix for details*
  - **Producer** [optional] *required for NAFTA CO and only applies to NAFTA CO*
    - **Option**::string [optional] *'01' (available to customs on request), '02' (same as exporter), '03' (attached list), or '04' (unknown)*
    - **CompanyName**::string [optional] *required if producer option is not present or empty; up to 35 characters*
    - **Address** [optional] *required if producer option is not present or empty*
      - **AddressLine1**::string *up to 35 characters*
      - **AddressLine2**::string [optional] *up to 35 characters; commonly used for room or floor information*
      - **AddressLine3**::string [optional] *up to 35 characters; commonly used for department information*
      - **City**::string *up to 30 characters*
      - **StateProvinceCode**::string [optional] *2 to 5 characters; required for US, Mexico, and Canada*
      - **PostalCode**::string [optional] *required for US, Canada, and Puerto Rico; up to 9 characters; US 9-digit zip codes may also include a '-' separator*
      - **CountryCode**::string *two-character country abbreviation; see appendix for details*
    - **TaxIdentificationNumber**::string [optional] *up to 15 characters*
- **Product** [as many as 50] *applies to SED, Invoice, CO, and NAFTA CO*
  - **Description**::string [as many as 3]
  - **Unit** [optional] *'BA' (Barrel), 'BE' (Bundle), 'BG' (Bag), 'BH' (Bunch), 'BOX' (Box), 'BT' (Bolt), 'BU' (Butt), 'BX' (Box), 'CI' (Canister), 'CM' (Centimeter), 'CON' (Container), 'CR' (Crate), 'CS' (Case), 'CT' (Carton), 'CY' (Cylinder), 'DOZ' (Dozen), 'EA' (Each), 'EN' (Envelope), 'FT' (Feet), 'KG' (Kilogram), 'KGS' (Kilograms), 'LB' (Pound), 'LBS' (Pounds), 'L' (Liter), 'M' (Meter), 'NMB' (Number), 'PA' (Packet), 'PAL' (Pallet), 'PC' (Piece), 'PCS' (Pieces), 'PF' (Proof Liters), 'PK' (Package), 'PKG' (Package), 'PR' (Pair), 'PRS' (Pairs), 'RL' (Roll), 'SET' (Set), 'SME' (Square Meters), 'SYD' (Square Yards), 'TU' (Tube), 'YD' (Yard), 'OTH' (Other, in which case Description is required)*
    - **Number**::string
    - **Value**::string
    - **UnitOfMeasurement**
      - **Code**::string
      - **Description**::string [optional]
  - **CommodityCode**::string [optional] *applies to invoice and NAFTA CO; required for NAFTA CO; 6 to 15 characters; international commodity or harmonized code*
  - **PartNumber**::string [optional] *applies to Invoice; up to 10 characters*
  - **OriginCountryCode**::string [optional] *applies to Invoice and NAFTA CO; required for Invoice; required for NAFTA CO unless JointProductionIndicator is present*
  - **JointProductionIndicator** [optional] *applies to NAFTA CO*
  - **NetCostCode**::string [optional] *applies to NAFTA CO, for which it is required; 'NC' (regional value content calculated using net cost method) or 'NO' (otherwise)*
  - **NetCostDateRange** [optional] *applies to NAFTA CO*
    - **BeginDate**::string *format is 'YYYYMMDD'*

❶ ❷ ❸ ❹ ❺ ❻ ❼

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❶ ❷ ❸ ❹ ❺ ❻ ❼

- **EndDate**::string *format is 'YYYYMMDD'*
- **PreferenceCriteria**::string [optional] *applies to NAFTA CO, for which it is required; 'A' through 'F'; see appendix for details*
- **ProducerInfo**::string [optional] *applies to NAFTA CO, for which it is required; 'Yes' (shipper is producer), 'No[1]' (CO based on knowledge of whether the good qualifies as an originating good), 'No[2]' (CO relies on producer's written representation that good qualifies as originating good), or 'No[3]' (complete and signed CO provided to exporter by producer)*
- **MarksAndNumbers**::string [optional] *applies to CO only; distinguishing marks or numbers appearing on package*
- **NumberOfPackagesPerCommodity**::string [optional] *applies to CO only, for which it is required; up to three digits*
- **ProductWeight** [optional] *only applies to SED and CO forms, for which it is required; weight including container(s) but not carrier equipment; units are 'KGS' or 'LBS'; weight is limited to 5 characters with up to one digit after decimal point*
  - **UnitOfMeasurement** [optional]
    - **Code**::string
  - **Weight**::string *up to 5 characters; up to one digit after the decimal place*
- **VehicleID**::string [optional] *only applies to SED forms; up to 25 characters; Vehicle Identification Number (VIN), product identification number for self-propelled vehicles without a VIN, or vehicle title number*
- **ScheduleB** [optional] *only applies to SED forms, for which it is required*
  - **Number**::string *exactly 10 characters*
  - **Quantity**::string *how many of specified unit; for example, if unit is dozens, this value is how many dozens; required unless unit of measurement is 'X'*
  - **UnitOfMeasurement**
    - **Code**::string *'BBL' (Barrel), 'CAR' (Carat), 'CM2' (Square Centimeter), 'CTN' (Content Ton), 'CUR' (Curie), 'CYK' (Clear Yield Kilogram), 'DOZ' (Dozen), 'DPC' (Dozen Pieces), 'DPR' (Dozen Pairs), 'FBM' (Fiber Meter), 'GCN' (Gross Containers), 'GM' (Gram), 'GRS' (Gross), 'HUN' (Hundreds), 'KG' (Kilograms), 'KM3' (1,000 Cubic Meters), 'KTS' (Kilogram Total Sugars), 'L' (Liter), 'M' (Meter), 'M2' (Square Meters), 'M3' (Cubic Meters), 'MC' (Millicurie), 'NO' (Number), 'PCS' (Pieces), 'PFL' (Proof Liter), 'PK' (Pack), 'PRS' (Pairs), 'RBA' (Running Bales), 'SQ' (Squares), 'T' (Tons), 'THS' (thousands), 'X' (No quantity required)*
- **ExportType**::string [optional] *applies to SED forms, for which it is required; 'D' (domestic), 'F' (foreign), or 'M' (foreign military); domestic exports are produced, manufactured, or grown in the United States or Puerto Rico, including merchandise which has been enhanced in value or changed from its imported form by further processing or manufacture in the United States or Puerto Rico; foreign exports are exported from the United States in the same form as their import; foreign military exports are sold under a foreign military sales program*
- **SEDTotalValue**::string [optional] *applies to SED forms, for which it is required; up to 15 characters, with up to 2 digits after decimal place; always in US dollars*

- **InvoiceNumber**::string [optional] *applies to Invoice only*
- **InvoiceDate**::string [optional] *applies to Invoice only; required for forward shipments; will always be returned blank on return service; format is 'YYYYMMDD'*
- **PurchaseOrderNumber**::string [optional] *applies to Invoice only*
- **TermsOfShipment**::string [optional] *applies to Invoice only; 'CFR' (Cost and Freight), 'CIF' (Cost, Insurance and Freight), 'CIP' (Carriage and Insurance Paid), 'CPT' (Carriage Paid To), 'DAF' (Delivered at Frontier), 'DDP' (Delivered Duty Paid), 'DDU' (Delivered Duty Unpaid), 'DEQ' (Delivered Ex Quay), 'DES' (Delivered Ex Ship), 'EXW' (Ex Works), 'FAS' (Free Along Side), 'FCA' (Free Carrier), 'FOB' (Free On Board)*
- **ReasonForExport**::string [optional] *applies to Invoice only, for which it is required; 'SALE', 'GIFT', 'SAMPLE', 'RETURN', 'REPAIR', 'INTERCOMPANYDATA', etc.*
- **Comments**::string [optional] *applies to Invoice only*
- **DeclarationStatement**::string [optional] *statement(s) from the shipper declaring certain facts or criteria to be true; usually directed at customs or government agency or placed on*

❶ ❷ ❸ ❹ ❺ ❻ ❼

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invoice because of customs regulation
- **Discount** [optional] *applies to Invoice only; amount to be subtracted from total value on the invoice*
  - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
- **FreightCharges** [optional] *applies to Invoice only*
  - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
- **InsuranceCharges** [optional] *applies to Invoice only; insurance charges for commercial invoice*
  - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
- **OtherCharges** [optional] *applies to Invoice only*
  - **MonetaryValue**::string *limited to 99999999.99 with up to 2 digits after decimal point; must use period (.) for fractional values*
  - **Description**::string [optional]
- **CurrencyCode**::string [optional] *currency for all charges on Invoice; 3-letter currency abbreviation; defaults to the standard currency in shipper's country; see appendix for details*
- **BlanketPeriod** [optional] *applies to NAFTA CO, for which it is required*
  - **BeginDate**::string *format is 'YYYYMMDD'*
  - **EndDate**::string *format is 'YYYYMMDD'*
- **ExportDate**::string [optional] *applies to CO and SED only, for which it is required; format is 'YYYYMMDD'*
- **ExportingCarrier**::string [optional] *applies to CO and SED only, for which it is required; include flag number if carrier is a vessel; name of carrier exporting shipment, including vessel number if shipment is vessel shipment*
- **CarrierID**::string [optional] *applies to SED only; four-character Standard Carrier Alpha Code (SCAC) for vessel, rail, and truck shipments; two- or three-character International Air Transport Association (IATA) code for air shipments*
- **InBondCode**::string *applies to SED only for which it is required; '70' (not in bond), '36' (warehouse withdrawal for IE), '37' (warehouse withdrawal for T/E), '62' (T/E), '63' (IE), '67' (IE from FTZ), '68' (T/E from FTZ)*
- **EntryNumber**::string [optional] *applies to SED only; required when InBondCode is '70' (not in bond); import entry number when export transaction is used as proof of export*
- **PointOfOrigin**::string [optional] *applies to SED only, for which it is required; either the two-letter abbreviation for the US state (or 'PR' for Puerto Rico) or foreign trade zone number from which goods were shipped; for multiple origins, use point of consolidation or source of good with highest value*
- **ModeOfTransport**::string [optional] *applies to SED only, for which it is required; 'Air', 'AirContainerized', 'Auto', 'FixedTransportInstallation', 'Mail', 'PassengerHandcarried', 'Pedestrian', 'Rail', 'RailContainerized', 'RoadOther', 'SeaBarge', 'SeaContainerized', 'SeaNoncontainerized', 'Truck', 'TruckContainerized'; all values will be truncated to 10 characters on form*
- **PortOfExport**::string [optional] *applies to SED only; up to 35 characters; for overland, US customs port where carrier crosses US border; for vessel and air, US customs port where goods are loaded on carrier; for postal, US post office from which goods are mailed*
- **PortOfUnloading**::string [optional] *applies to SED only; up to 35 characters; country and port where goods will be unloaded; for air and vessel shipments only*
- **LoadingPier**::string [optional] *applies to SED only; for vessel shipments only*
- **PartiesToTransaction**::string [optional] *applies to SED only; shipper and consignee/importer are related ('R') or not ('N')*
- **RoutedExportTransactionIndicator** [optional] *applies to SED only; if present, foreign principal party authorizes US forwarding agent to export shipment outside of US*
- **ContainerizedIndicator** [optional] *applies to SED only; if present, goods are containerized (for vessel shipments only)*
- **License** [optional] *applies to SED only; if product is not licensable, an exception code is required*

❶ ❷ ❸ ❹ ❺ ❻ ❼

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❶ ❷ ❸ ❹ ❺ ❻ ❼

- **Number**::string [optional] *up to 35 characters; license number*
- **Date**::string [optional] *date of license; format is 'YYYYMMDD'*
- **ExceptionCode**::string [optional] *one to four characters; see appendix for details*

ECCNNumber::string [optional] *applies to SED only; export control classification number; required for license exception codes of CIV, CTP, ENC, KMI, and LVS; export control classification number; required for license exception codes of CIV, CTP, ENC, KMI, and LVS*

AdditionalDocumentIndicator [optional] *applies for peperless invoices only; if present client will supply additional documents such as a shipper export declaration, certificate of origin, or a Nafta certificate of origin*

InternationalForms Example XML Fragment:

```
<InternationalForms>
    <FormType>04</FormType>
    <Contacts>
        <Producer>
            <Option>01</Option>
            <CompanyName>Tree Service</CompanyName>
            <Address>
                <AddressLine1>678 Elm St</AddressLine1>
                <AddressLine2>Room 56</AddressLine2>
                <AddressLine3>Dept 56</AddressLine3>
                <City>Marietta</City>
                <StateProvinceCode>GA</StateProvinceCode>
                <PostalCode>30066</PostalCode>
                <CountryCode>US</CountryCode>
            </Address>
            <PhoneNumber>4445556</PhoneNumber>
            <EmailAddress>abc@aol.com</EmailAddress>
            <TaxIdentificationNumber>ZZ123</TaxIdentificationNumber>
        </Producer>
    </Contacts>
    <Product>
        <FormType>04</FormType>
        <Description>Tree cut this week</Description>
        <CommodityCode>12345678</CommodityCode>
        <OriginCountryCode>US</OriginCountryCode>
        <JointProductionIndicator>JNT</JointProductionIndicator>
        <NetCostCode>NC</NetCostCode>
        <NetCostDateRange>
            <BeginDate>08012005</BeginDate>
            <EndDate>10152005</EndDate>
        </NetCostDateRange>
        <PreferenceCriteria>A</PreferenceCriteria>
        <ProducerInfo>No[1]</ProducerInfo>
    </Product>
    <BlanketPeriod>
        <BeginDate>01152005</BeginDate>
        <EndDate>08162005</EndDate>
    </BlanketPeriod>
</InternationalForms>
```


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Error Codes

To discover errors, check the ResponseStatusCode element. A "1" normally indicates a successful response, whereas a "0" indicates an error, either Transient or Hard. When an error occurs there will also be an error code, and an error description.

- Success – Successful responses may or may not include **Warnings**.
    - (without warnings) Request is processed as anticipated by the client.
    - (with warnings) *Warning* messages indicate that UPS was able to process the request; however (potentially) unanticipated results have also occurred. The warning contains information in the response that should be passed to the end user.
- Errors – will return two different levels of severity.
    - *Transient* errors are temporary errors, due to temporary high server loads or scheduled maintenance, for example. The application may re-issue the request at a later time.
    - *Hard* errors indicate that an error existed in the request that UPS could not resolve. These errors are critical and prevent requests from processing.

Applications should not re-issue requests with Hard errors without first correcting the error.

The following table lists the errors that UPS may return in response to a request.

Code	Severity	Explanation
10001	Hard	The XML document is not well formed
10002	Hard	The XML document is well formed but the document is not valid
120001	Transient	XML Shipping System is unavailable, please try again later.
120014	Warning	A Large Air Package Minimum Surcharge has been applied to Package %package.index%.
120016	Warning	Customs Invoice is required when the shipment is tendered to shipment
120017	Warning	If the value of the goods you are shipping is above 6,000 Euro or local equivalent, you must supply an EUR1 form in addition to signing your invoice.
120019	Warning	The location ID you provided is not valid. Valid location ID consists of 3 to 10 alpha numeric characters.
120020	Hard	Max packages per shipment exceeded.
120021	Hard	The same shipment cannot be requested to be created more than once.
120022	Warning	For packages with high value report: give them to a UPS driver or UPS Customer Center representative to ensure he signs one copy of the receipt and returns it to you.

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Code	Severity	Explanation
		This is your proof that UPS has accepted the package(s), and will be required for submitting a claim.
120050	Hard	RequestAction has an unsupported value.
120051	Hard	Invalid RequestOption
120100	Hard	Missing/Invalid shipper number
120101	Hard	Missing/Invalid shipper name
120102	Hard	Missing/Invalid shipper address line 1
120103	Hard	Invalid shipper address line 2
120104	Hard	Invalid shipper address line 3
120105	Hard	Missing/Invalid Shipper City
120106	Hard	Missing/Invalid Shipper StateProvinceCode
120107	Hard	Missing/Invalid Shipper PostalCode. (Description)
120108	Hard	Missing/Invalid Shipper CountryCode
120109	Hard	Missing/Invalid Shipper PhoneNumber
120110	Hard	Missing/Invalid Shipper AttentionName
120111	Hard	Shipper EmailAddress cannot exceed a length of 50 characters
120112	Hard	Shipper EmailAddress is an invalid format
120113	Hard	Shipper number must contain alphanumeric characters only
120114	Hard	Shipper phone extension cannot exceed the length of 4.
120115	Hard	Shipper PhoneNumber must be at least 10 alphanumeric characters
120116	Hard	Shipper phone extension must contain only numbers
120117	Hard	Shipper phone extension is allowed only if the shipper is located in US, Puerto Rico or Canada
120118	Hard	Shipper phone extension is only valid if a phone number is given
120119	Hard	Shipper phone number and phone extension together cannot be more than 15 digits long
120120	Hard	The country associated with Shipper's ShipperNumber must be the same as the shipments ShipFrom's country.
120121	Hard	The Shipper's shipper number cannot be used for the shipment.
120122	Hard	Invalid Shipper ShipperNumber
120200	Hard	Missing/Invalid ShipTo CompanyName
120201	Hard	Missing/Invalid ShipTo AttentionName
120202	Hard	Missing/Invalid ShipTo AddressLine1
120203	Hard	Invalid ShipTo AddressLine2
120204	Hard	Invalid ShipTo AddressLine3
120205	Hard	Missing/Invalid ShipTo/ City
120206	Hard	Missing/Invalid ShipTo StateProvinceCode
120207	Hard	Missing/Invalid ShipTo PostalCode. (Description)
120208	Hard	Missing/Invalid/Unsupported ShipTo CountryCode
120209	Hard	Missing/Invalid ShipTo PhoneNumber
120210	Hard	ShipTo EmailAddress cannot exceed a length of 50 characters
120211	Hard	ShipTo EmailAddress is an invalid format
120212	Hard	ShipTo PhoneExtension cannot exceed the length of 4.
120213	Hard	ShipTo PhoneNumber must be at least 10 alphanumeric characters
120214	Hard	ShipTo PhoneExtension must contain only numbers
120216	Hard	ShipTo PhoneExtension is only valid if a phone number is given
120217	Hard	ShipTo phone number and phone extension together

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Code	Severity	Explanation
		cannot be more than 15 digits long
120300	Hard	Missing/Invalid ShipFrom CompanyName
120301	Hard	Missing/Invalid ShipFrom AttentionName
120302	Hard	Missing/Invalid ShipFrom AddressLine1
120303	Hard	Invalid ShipFrom AddressLine2
120304	Hard	Invalid ShipFrom AddressLine3
120305	Hard	Missing/Invalid ShipFrom City
120306	Hard	Missing/Invalid ShipFrom StateProvinceCode
120307	Hard	Missing/Invalid ShipFrom PostalCode. (Description)
120308	Hard	Missing/Invalid/Unsupported ShipFrom CountryCode
120309	Hard	Missing/Invalid ShipFrom PhoneNumber
120310	Hard	ShipFrom EmailAddress cannot exceed a length of 50 characters
120311	Hard	ShipFrom EmailAddress is an invalid format
120312	Hard	ShipFromPhoneExtension cannot exceed the length of 4.
120313	Hard	ShipFrom PhoneNumber must be at least 10 alphanumeric characters
120314	Hard	ShipFromPhoneExtension must contain only numbers
120316	Hard	ShipFromPhoneExtension is only valid if a phone number is given
120317	Hard	The ShipFrom country must be the same as the Shipper country
120318	Hard	ShipFrom phone number and phone extension together cannot be more than 15 digits long
120400	Hard	Missing/Invalid shipment payment method
120402	Hard	Missing/Invalid credit card type
120403	Hard	Missing/Invalid credit card number
120404	Hard	Missing/Invalid credit card expiration date
120406	Hard	creditcard number is not valid for the credit card type
120407	Hard	The credit card provided as the payment method has expired.
120408	Hard	Missing credit card type
120410	Hard	One payment method is required.
120411	Hard	Credit card payment is not allowed for this shipment.
120412	Hard	{Description}
120413	Hard	The UPS account number provided as the payment method cannot be billed, please try another account.
120414	Hard	Credit card authorization failed, contact your financial institution
120415	Hard	PaymentInformation/Prepaid/BillShipper/AccountNumber must be the same shipper number as Shipper/ShipperNumber
120416	Hard	A single billing option is required per shipment.
120430	Hard	Missing/Invalid country code of billed third party
120437	Hard	Missing/Invalid PostalCode of payment account
120500	Hard	Missing/Invalid Service/Code
120501	Hard	Invalid Shipment/ReferenceNumber/Value
120502	Hard	InvoiceLineTotal/MonetaryValue must be greater than 0
120503	Hard	Shipment Description cannot exceed the length of 35 characters
120504	Hard	InvoiceLineTotal is not allowed for this shipment
120505	Hard	Saturday Delivery Option cannot be used for this shipment
120506	Hard	Invalid Shipment/ReferenceNumber/ Code
120508	Hard	Missing/Invalid On Call Air pickup date

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Code	Severity	Explanation
120510	Hard	Missing/Invalid latest On Call Air pickup time
120511	Hard	Invalid earliest or latest On Call Air pickup time
120512	Hard	Shipment Description is required for this shipment.
120515	Hard	{ notification type} Memo cannot exceed the length of 150 characters
120517	Hard	The {order} Email Address used for { notification type} exceeds the maximum length of 50 characters
120518	Hard	The format of the {order} Email Address entered for { notification type} is invalid
120519	Hard	The {order} Email Address entered for { notification type} is missing or contains invalid characters
120520	Hard	For a shipment, the maximum number of Email Addresses allowed for Quantum View Notification is 5
120521	Hard	For a shipment, the maximum number of Memos allowed for {Quantum View notification type} is 1
120522	Hard	Alternate Delivery Time is not valid for any available services
120523	Hard	Shipment/DocumentsOnly is invalid with the shipment's orgin/destination pair
120524	Hard	Package Pickup Request is not available with this shipment's service
120526	Hard	InvoiceLineTotal/MonetaryValue may not exceed the length of 8
120527	Hard	Cannot use multiple types of currency in a shipment
120528	Hard	A shipment can have only one type of UnitOfMeasurement for Dimensions
120529	Hard	A shipment can have only one type of UnitOfMeasurement for a Weight
120530	Hard	SuiteRoomID length of shipment pickup cannot exceed 8 characters
120531	Hard	FloorID length of shipment pickup cannot exceed 3 characters
120532	Hard	Location length of shipment pickup cannot exceed 11 characters
120533	Hard	The earliest shipment pickup time is required
120534	Hard	The latest shipment pickup time is required
120535	Hard	Contact name of shipment pickup is required
120536	Hard	Contact phone number of shipment pickup is required
120537	Hard	Invalid/Missing the earliest shipment pickup time
120538	Hard	Shipment Pickup Error: (further description is provided in XML)
120539	Hard	InvoiceLineTotal/ MonetaryValue is required and must be a whole number
120540	Hard	On Call Air Pickup is not available for this shipment
120541	Hard	Shipment/ReferenceNumber is not allowed for this shipment
120542	Hard	Package/ReferenceNumber is not allowed for this shipment
120543	Hard	No more than 2 Shipment/ReferenceNumber can be given per shipment
120544	Hard	No more than 2 Package/ReferenceNumber can be given per package
120545	Hard	Shipment/Description is not valid with this shipment
120546	Hard	(UOM Weight) is not a valid unit of measurement for weight for this shipment

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Code	Severity	Explanation
120547	Hard	(UOM Dimension) is not a valid unit of measurement for dimensions.
120548	Hard	A shipment cannot have a KGS/IN or LBS/CM as its unit of measurements
120549	Hard	Invalid ReferenceNumber/BarCodeIndicator.
120550	Hard	Shipment/ReferenceNumber[(reference numer)]/Value cannot be bar-coded
120551	Hard	Package{sequence} /ReferenceNumber[(reference numer)]/Value cannot be bar-coded
120552	Hard	LabelLinkIndicator is not allowed for the shipment.
120553	Hard	ReferenceNumber/BarCodeIndicator is not allowed with the shipment.
120597	Hard	Invalid COD currency code. Please use the destination country currency code.
120598	Hard	Package Delivery Confimation is not allowed with the shipment origin/destination
120599	Hard	Invalid package Delivery Confirmation type
120600	Hard	Missing Package/Packag ingType/Code
120601	Hard	Missing/Invalid Package weight
120602	Hard	Missing/Invalid Combination of package length, width, and height values.
120603	Hard	Invalid Package/Reference/Value
120604	Hard	Invalid package declared value
120605	Hard	Mismatch package dimensions with package type
120606	Hard	Mismatch package dimensions, package type and package weight
120607	Hard	Invalid Package/Reference/Code
120608	Hard	Package weight is required
120609	Hard	All Package Dimensions are required and each must be greater than 0
120610	Hard	Invalid COD monetary value
120611	Hard	The contact name of verbal confirmation cannot exceed a length of 35
120612	Hard	The contact phone number of verbal confirmation cannot exceed the length of 15
120613	Hard	The contact phone number of verbal confirmation must be at least 10 alphanumeric characters
120614	Hard	The contact phone extension of verbal confirmation cannot exceed the length of 4
120615	Hard	The contact phone extension of verbal confirmation must contain numbers only
120616	Hard	Package weight cannot exceed a length of 6
120617	Hard	Package declared value cannot exceed a value of 999
120618	Hard	Contact name is required for verbal confirmation of delivery
120619	Hard	Contact phone number is required for verbal confirmation of delivery
120620	Hard	Package/PackageWeight, Package/DimensionalWeight, Package/OversizePackage and Package/Dimensions do not apply to UPS Envelopes
120621	Hard	Package declared value cannot be greater than {Monetary Amount} {Currency Code}
120622	Hard	Package description is required
120623	Hard	Invalid Package description
120624	Hard	Only one package is allowed for this movement.

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Code	Severity	Explanation
120625	Hard	Invalid/Missing Shipment/ReturnServiceCode
120626	Hard	The COD Funds Code is invalid. Please check the value entered
120627	Hard	The COD Code is invalid. Please check the value entered
120644	Hard	LabelDelivery is not valid for the shipment
120645	Hard	Return Notification is not valid for the shipment
120649	Hard	Invalid ShipmentServiceOptions/Notification/NotificationCode
120650	Hard	Invalid PackageServiceOptions/ Notification/NotificationCode
120654	Hard	No more than two email addresses for Receiver Return Notification are allowed in a shipment
120655	Hard	{Email field} of Receiver Return Notification is only allowed to be specified at the first package.
120658	Hard	Receiver Return Notification is not allowed for the shipment without return service
120659	Hard	ShipmentServiceOptions/ShipmentNotification is not allowed with return service
120660	Hard	ShipmentServiceOptions/ShipmentNotification is not allowed with ShipmentServiceOptions/Notification
120661	Hard	For a shipment, the maximum number of {email field} allowed for Quantum View notification is 1.
120662	Hard	Invalid Subject Code of {Notification type}
120663	Hard	Invalid From name of {Notification tye}
120664	Hard	Invalid UndeliverableEMailAddress of {Notification type}
120665	Hard	Invalid FromEMailAddress of {Notification type}
120666	Hard	Missing/Invalid subject text of {Notification type}
120667	Hard	{field} is not allowed in Quantum View Notification
120670	Hard	Shipper Release is not allowed with Return Service
120680	Hard	The quantity of packages that have a declared value over 999 USD or equivalent in this shipment exceeds 9 packages, please limit the number of declared value packages to 9.
120700	Hard	Missing/Invalid LabelSpecification/ LabelPrintMethod/Code
120701	Hard	Missing/Invalid LabelSpecification/ HTTPUserAgent
120702	Hard	Missing/Invalid LabelSpecification/ LabelImageFormat/Code
120703	Hard	Missing/Invalid Combination of LabelSpecification/ LabelStockSize
120704	Hard	Missing/Invalid LabelSpecification/ LabelStockSize/Height
120705	Hard	Missing/Invalid LabelSpecification/LabelStockSize/Width
120801	Hard	Address Validation Error on Shipper address
120802	Hard	Address Validation Error on ShipTo address
120803	Hard	Address Validation Error on ShipFrom address
120804	Warning	Address Validation Warning on Shipper address. {Description}
120805	Warning	Address Validation Warning on ShipTo address. {Description}
120806	Warning	Address Validation Warning on ShipFrom address {Description}
120900	Warning	User Id and Shipper Number combination is not eligible to receive Account Based Rates.
120901	Warning	Negotiated Rates are unavailable at this time.
121005	Hard	The COD option cannot be combined with the Return

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Code	Severity	Explanation
		Services option.
121015	Hard	The Saturday Delivery option cannot be combined with the Return Services option.
121020	Hard	The Delivery Confirmation option cannot be combined with the Return Services option.
121025	Hard	The maximum declared amount $50,000 is exceeded
121030	Hard	Packages must weigh more than zero pounds.
121031	Hard	Packages must weigh more than zero kilogram
121035	Hard	{description}
121036	Hard	{description}
121040	Hard	The Return Services are unavailable with the requested service.
121045	Hard	The Saturday Delivery option is unavailable with the requested service.
121047	Hard	Saturday Delivery may not be combined with the package type for the given product.
121050	Hard	Package exceeds the maximum size total constraints { description}
121055	Hard	Package exceeds the maximum length constraint of {desription} inches. .
121056	Hard	Package exceeds the maximum length constraint of {desription} cm.
121057	Hard	The measurment system is not valid
121063	Hard	Accessorial cannot be shipped with the selected service.
121070	Hard	{Rating error description}.
121085	Hard	The requested accessory cannot be added to the shipment.
121087	Hard	The Authorized Return Service option is not allowed for shipments.
121090	Hard	{Rating error description}
121091	Hard	{Rating error description}
121100	Hard	The selected service is invalid for the shipment origin.
121105	Hard	The given accessory key is invalid for the shipment origin.
121106	Hard	The specified country, origin or dest, is not supported.
121107	Hard	A blank origin postal was specified.
121115	Hard	The COD amount must be greater than zero
121120	Hard	The COD amount cannot exceed $1,000 when a cashiers check or money order is requested.
121121	Hard	The COD value entered exceeds the maximum allowed for cash of {amount} ({currency code})
121125	Hard	The COD amount cannot exceed $50,000.
121126	Hard	The COD value entered exceeds the maximum allowed for check of {amount} ({currency code})
121135	Hard	The Saturday Pickup option cannot be combined with the Saturday Delivery option.
121140	Hard	Saturday Pickup is unavailable with the selected service.
121150	Hard	Delivery confirmation is unavailable with the selected service.
121155	Hard	The COD option is unavailable with the selected service, UPS account type, and/or with the shipments origin/destination pair.
121160	Hard	The accessory is invalid with the billing option.
121165	Hard	The Verbal Confirmation of Delivery option cannot be combined with the Return Services option.

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Code	Severity	Explanation
121170	Hard	The Delivery Confirmation option cannot be combined with the Verbal Confirmation of Delivery option.
121175	Hard	Verbal Confirmation of Delivery is unavailable with the selected service.
121180	Hard	Consignee Billing is unavailable with the selected service.
121185	Hard	The selected service is unavailable to the desired country
121195	Hard	The selected billing option is unavailable with the selected service.
121196	Hard	The selected billing option is unavailable with UPS Letters.
121200	Hard	Saturday Delivery is unavailable to desired destination.
121205	Hard	Additional Handling is unavailable with the selected service.
121206	Hard	Additional Handling is unavailable with UPS Letters.
121208	Hard	UPS Next Day Air Early A.M. service is not available to the requested destination. Please select UPS Next Day Air service as an alternative.
121210	Hard	The selected service is not available from the origin to the destination.
121211	Hard	Rating Error: (Description)
121212	Hard	{Rating error description}
121213	Hard	{Rating error description}
121214	Hard	UPS cannot ship from the origin country to the destination country
121215	Hard	The selected service is not available to residential destinations.
121225	Hard	Return Services are unavailable to the given destination.
121230	Hard	Next Day Air Early AM Surcharge is unavailable with the selected service.
121231	Hard	Switzerland Domestic Container must weigh greater than 2 KG
121232	Hard	Worldwide Express Plus from Europe to Switzerland must be UPS Envelope or document only
121235	Hard	{rating error description}
121245	Hard	Saturday Pickup and Shipper Duty Fees cannot be applied to the same package.
121250	Hard	Saturday Delivery and Shipper Duty Fees cannot be applied to the same package.
121255	Hard	Shipper Duty Fee is unavailable with the selected service.
121260	Hard	Shipper Duty Fee is unavailable with the selected billing option.
121261	Hard	Accessory may not be combined with the product.
121262	Hard	Accessory may not be combined with the accessory.
121265	Hard	The selected billing option is unavailable to the desired country.
121266	Hard	The currency code is invalid for the shipment.
121267	Hard	The Ship From Country is invalid for the credit card.
121268	Hard	The Billing address Country is invalid for the credit card.
121285	Hard	{Rating error descritpion}
121286	Hard	{Rating error description}
121290	Hard	The given billing option is invalid
121295	Hard	{Rating error description}
121300	Hard	Shipper Pays Duty - Tax Unpaid is unavailable with the selected accessorial.

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Code	Severity	Explanation
121305	Hard	Shipper Pays Duty - Tax Unpaid is unavailable with the selected service.
121310	Hard	Shipper Pays Duty - Tax Unpaid is unavailable with the selected billing option.
121315	Hard	The Authorized Return Service is unavailable with the selected accessorial.
121320	Hard	The Authorized Return Service is unavailable with the selected service.
121325	Hard	The Authorized Return Service is unavailable with the selected billing option.
121330	Hard	The Certificate of Origin is unavailable with the selected accessorial.
121335	Hard	The Certificate of Origin is unavailable with the selected service.
121340	Hard	The Certificate of Origin is unavailable with the selected billing option.
121345	Hard	The Shipper Export Declaration is unavailable with the selected accessorial.
121350	Hard	The Shipper Export Declaration is unavailable with the selected service.
121355	Hard	The Shipper Export Declaration is unavailable with the selected billing option.
121360	Hard	The Worldwide Express Plus Surcharge is unavailable with the selected service.
121363	Hard	The One Time Pickup Surcharge is unavailable with the selected service.
121365	Hard	Accessorial is not available with the selected access method.
121370	Hard	Invalid access method.
121375	Hard	Letter service is invalid for shipments with more than 1 package. International shipment cannot be made with multiple 10KG or 25KG packages
121460	Hard	Shipments cannot exceed a COD amount of $5,000 when requesting a cashiers check or money order.
121500	Hard	{Rating error description}
121501	Hard	{Rating error Description}
121510	Hard	Unsupported package type type.
121511	Hard	Unsupported accessory type
121512	Hard	Unsupported billing option
121513	Hard	Unsupported service
121515	Warning	Weight of (actual weight) exceeds maximum for rating the requested container. Using standard package rates.
121520	Hard	The UPS account number specified for Transportation charges is invalid for Split Duty VAT shipment.
121521	Hard	Invalid payer of Duty and Tax
121522	Hard	The payment information must be the same for both Transportation charges and Duty and Tax charges when Bill to Shipper or Bill to Receiver is specified as the payer.
121523	Hard	Invalid GoodsNotInFreeCirculationIndicator
121524	Warning	The payer of Duty and Tax charges is not required for UPS Letter, Documents of No Commercial Value or Qualified Domestic Shipments.
121526	Hard	The payment method specified for Transportation charges is invalid for return service.
121527	Hard	The payer of Transportation charges is required.

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Code	Severity	Explanation
121528	Hard	Missing or invalid ItemizedPaymentInformation/ShipmentCharge/Type
121529	Hard	A single payment method is required per shipment charge.
121530	Hard	The payer of Duty and Tax charges is required.
121531	Hard	Invalid SplitDutyVATIndicator
121532	Hard	The payer of Duty and Tax charges is invalid for Split Duty VAT shipment.
121534	Hard	The payer of Transportation charges and the payer of Duty and Tax charges must not be the same for Split Duty VAT shipment.
121535	Hard	The payer of Transportation charges is invalid for Split Duty VAT shipment.
121536	Hard	Bill Receiver is an invalid payer of an international return movement.
121537	Hard	A payer is required when specifying a shipment charge.
121538	Hard	For a domestic return movement, the payer of the freight must be in the country of the return movement.
121539	Hard	For an EU return movement, the payer of the freight must be in an EU country.
121801	Hard	The country selected for transportation charges does not allow for Third Party payment option.
121802	Hard	The country selected for duty/taxes charges does not allow for Third Party payment option.
123005	Warning	(Description)
123010	Warning	Package(s) in this shipment contains a warning: (Description)
123020	Warning	Invalid Ship From postal code
123021	Warning	Invalid Ship To postal code
125000	Hard	Missing or invalid shipment digest.
129001	Warning	Additional Handling has automatically been set on Package (index of the package).
129002	Warning	An Extended Area Surcharge of (monetary value) has been added to the service cost.
129003	Warning	{Rating error description}
129004	Warning	{Rating error description}
129005	Warning	{Rating error description}
129006	Warning	{Rating error description}
129011	Hard	The maximum declared value amount for the 1-Attempt option is 999 USD
129012	Hard	The maximum declared value amount for the Print and Mail option is 999 USD
120914	Hard	The maximum declared value amount for the Electronic Delivery option is 999 USD
120915	Hard	The maximum declared value amount for the 3-Attempt option is 50,000 USD
129017	Warning	{Rating error description} .
129018	Warning	{Rating error description} .
129019	Hard	{Rating error description}
20001	Hard	General process failure
121156	Hard	Package Level COD is not valid for the shipment origin and/or destination
129020	Warning	Ship To Address Classification from AMS subsystem is different from user indicated.
129021	Hard	Both Security code and Billing address are required if

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Code	Severity	Explanation
		credit card information is provided.
129022	Hard	This credit card has been locked due to multiple unsuccessful validation attempts. Please use another credit card to continue or try again later.
129046	Hard	Missing credit card billing address line 1
129048	Hard	Missing credit card billing address city
129049	Hard	Missing credit card billing address state province code
129050	Hard	Missing credit card billing address postal code
129051	Hard	Missing credit card billing address country code
129070	Warning	{Rating error description}
120124	Hard	The requested service is unavailable between the selected locations
120125	Hard	Consignee billing is only supported in US or Pureto Rico
129057	Hard	Location ID may not exceed the length of 10
128014	Hard	Invalid ultimate consignee address line 3. Valid length is 0 to 35 alphanumeric
128015	Hard	Invalid or missing ultimate consignee city. Valid length is 1 to 30 alphanumeric
128016	Hard	Invalid ultimate consignee state province code. Valid length is 0 to 5 alphanumeric
128017	Hard	Invalid ultimate consignee postal code. Valid length is 0 to 9 alphanumeric
128018	Hard	Invalid or missing ultimate consignee country code
128019	Hard	Invalid or missing intermediate consignee company name. Valid length is 1 to 35 alphanumeric
128020	Hard	Invalid or missing intermediate consignee address line 1. Valid length is 1 to 35 alphanumeric
128021	Hard	Invalid intermediate consignee address line 2. Valid length is 0 to 35 alphanumeric
128022	Hard	Invalid intermediate consignee address line 3. Valid length is 0 to 35 alphanumeric
128023	Hard	Invalid or missing intermediate consignee city. Valid length is 1 to 30 alphanumeric
128024	Hard	Invalid intermediate consignee state province code. Valid length is 0 to 5 alphanumeric
128025	Hard	Invalid intermediate consignee postal code. Valid length is 0 to 9 alphanumeric
128026	Hard	Invalid or missing intermediate consignee country code
128027	Hard	Invalid or missing producer option. Valid values are 01, 02, 03 or 04
128028	Hard	Invalid or missing producer company name. Valid length is 1 to 35 alphanumeric
128029	Hard	Invalid or missing producer address line 1. Valid length is 1 to 35 alphanumeric
128030	Hard	Invalid producer address line 2. Valid length is 0 to 35 alphanumeric
128031	Hard	Invalid producer address line 3. Valid length is 0 to 35 alphanumeric
128032	Hard	Invalid or missing producer city. Valid length is 1 to 30 alphanumeric
128033	Hard	Invalid producer state province code. Valid length is 0 to 5 alphanumeric
128034	Hard	Invalid producer postal code. Valid length is 0 to 9 alphanumeric
128035	Hard	Invalid or missing producer country code

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Code	Severity	Explanation
128036	Hard	Invalid producer phone number. Valid length is 0 to 15 alphanumeric
128037	Hard	Invalid producer email address. Valid length is 0 to 50 alphanumeric
128038	Hard	Invalid producer tax id. Valid length is 0 to 15 alphanumeric
128039	Hard	Invalid number of products. Valid number of products are 1 to 4
128041	Hard	The form specified for the product must be one of the requested form.
128042	Hard	If invoice is a requested international form, all specified products must belong to invoice
128043	Hard	Invalid or missing product unit number. Valid length is 1 to 7 numeric
128044	Hard	Invalid or missing Product/Unit/UnitOfMeasurement/Code. Valid length is 1 to 3 alphanumeric
128045	Hard	Product/Unit/UnitOfMeasurement/Description is required when Product/Unit/UnitOfMeasurement/Code is "OTH" . Valid length is 1 to 3 alphanumeric
128046	Hard	Invalid or missing product unit value. Valid length is 1 to 12 numeric and it can hold up to 6 decimal places
128047	Hard	Invalid part number. Valid length is 0 to 10 alphanumeric
128048	Hard	Invalid commodity code. Valid length is 6 to 15 alphanumeric
128049	Hard	Invalid or missing product origin country code
128050	Hard	Invalid or missing net cost code. Valid values are NC or NO
128051	Hard	Invalid or missing net cost date range begin date. Valid format is MMDDYYYY
128052	Hard	Invalid or missing net cost date range end date. Valid format is MMDDYYYY
128053	Hard	Invalid or missing preference criteria. Valid values are A through F
128054	Hard	Invalid or missing producer info. Valid values are YES, NO[1], NO[2] or NO[3]
128055	Hard	Invalid or missing marks and numbers. Valid length is 1 to 35 alphanumeric
128056	Hard	Invalid or missing product weight unit of measurement code. Valid values are KGS or LBS
128057	Hard	Invalid or missing product weight. Valid length is 1 to 5 and it can hold up to 1 decimal places.
128058	Hard	Invalid product vehicle ID. Valid length is 1 to 25 alphanumeric
128059	Hard	Invalid or missing product schedule B number. Valid length is 10 alphanumeric
128060	Hard	Invalid product schedule B quantity. Valid length is 0 to 10 numeric
128061	Hard	Invalid or missing product schedule B unit of measurement code. Valid length is 1 to 3 alphanumeric
128062	Hard	Schedule B quantity is required when the schedule B unit of measurement code is not equal to X
128063	Hard	Invalid or missing export type. Valid values are D, F or M
128064	Hard	Invalid or missing SED total value. Valid length is 1 to 15 numeric and can hold up to 2 decimal places

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Code	Severity	Explanation
128065	Hard	Invalid invoice number. Valid length is 0 to 35 alphanumeric
128066	Hard	Invalid or missing invoice date. Valid format is MMDDYYYY
128067	Hard	Invalid purchase order number. Valid length is 0 to 35 alphanumeric
128068	Hard	Invalid terms of shipment.
128069	Hard	Invalid or missing reason for export. Valid length is 1 to 20 alphanumeric
128070	Hard	Invalid additional comments. Valid length is 0 to 150 alphanumeric
128071	Hard	Invalid declaration statement. Valid length is 0 to 250 alphanumeric
128072	Hard	Invalid discount monetary value. Valid length is 0 to 15 numeric and can hold up to 2 decimal places. Discount can not be greater than the invoice line total.
128073	Hard	Invalid freight charges monetary value. Valid length is 0 to 15 numeric and can hold up to 2 decimal places.
128074	Hard	Invalid other charges monetary value. Valid length is 0 to 15 numeric and can hold up to 2 decimal places.
128075	Hard	Invalid or missing other charges description. Valid length is 1 to 10 alphanumeric
128076	Hard	Invalid or missing blanket period begin date. Valid format is MMDDYYYY
128077	Hard	Invalid or missing blanket period end date. Valid format is MMDDYYYY
128078	Hard	Invalid or missing export date. Valid format is MMDDYYYY
128079	Hard	Invalid or missing export carrier. Valid length is 1 to 35 alphanumeric
128080	Hard	Invalid carrier ID. Valid length is 0 to 2 alphanumeric
128081	Hard	Invalid or missing in bond code. Valid length is 2 alphanumeric
128082	Hard	Entry number is required when the in bond code is other than 70. Valid Length is 1 to 25 alpha numeric
128083	Hard	Invalid or missing point of origin. Valid length is 1 to 5 alphanumeric
128084	Hard	Invalid or missing mode of transport. Valid length is 1 to 35 alphanumeric
128085	Hard	Invalid port of export. Valid length is 0 to 35 alphanumeric
128086	Hard	Invalid port of unloading. Valid length is 0 to 35 alphanumeric
128087	Hard	Invalid loading pier. Valid length is 0 to 35 alphanumeric
128088	Hard	Invalid or missing parties to transaction. Valid values are R or N
128089	Hard	Invalid license number. Valid length is 0 to 35 alphanumeric
128090	Hard	Invalid or missing license date. Valid format is MMDDYYYY
128091	Hard	Invalid license exception code. Valid length is 0 to 3 alphanumeric
128092	Hard	Either license number or license exception code must be present for a SED form.
128093	Hard	Invalid ECCN number code. Valid length is 1 to 3 alphanumeric

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Code	Severity	Explanation
128094	Hard	Sold to information is required when an invoice or NAFTA CO is requested.
128095	Hard	Invalid or missing sold to company name. Valid length is 1 to 35 alphanumeric
128096	Hard	Invalid or missing sold to address line 1. Valid length is 1 to 35 alphanumeric
128097	Hard	Invalid sold to address line 2. Valid length is 0 to 35 alphanumeric
128098	Hard	Invalid sold to address line 3. Valid length is 0 to 35 alphanumeric
128099	Hard	Invalid or missing sold to city. Valid length is 1 to 30 alphanumeric
128100	Hard	Invalid sold to state province code. Valid length is 0 to 5 alphanumeric
128101	Hard	Invalid sold to postal code. Valid length is 0 to 9 alphanumeric
128102	Hard	Invalid or missing sold to country code
128103	Hard	The selected international form is not valid for the shipment origin country
128104	Hard	Invalid product origin country for the selected international form
128105	Hard	The selected international form is not valid for the shipment origin and destination countries
128109	Hard	Invalid or missing sold to attention name. Valid value is 1 to 35 alphanumeric
128110	Hard	Invalid sold to option. Valid values are 01 or 02
128111	Hard	Commodity code is required for NAFTA CO
128112	Hard	Invalid insurance monetary value. Valid length is 0 to 15 numeric and can hold up to 2 decimal places.
128113	Hard	Invalid product description. Product description should be present atleast once. Valid range is 0 to 35 alphanumeric
128114	Hard	Invalid or missing currency code. Valid length is 3 alphanumeric.
128115	Hard	Invalid or missing sold to phone number. Valid length is 1 to 15 alphanumeric.
128116	Hard	Invalid sold to tax identification number. Valid length is 1 to 15 alphanumeric.
128117	Hard	Invalid or missing Shipper tax identification.
128118	Hard	Invalid license information. Either license number and license date or license exception code and ECCN number must be present. Both the combinations can not be present together.
128119	Hard	Invalid or missing product number of packages per commodity. Valid length is 1 - 3 Numerics
128120	Hard	Origin country must be different than destination country.
128121	Hard	Missing value of other unit of measurement.
128122	Hard	Invalid net cost date range.
128123	Hard	Invoice cannot be requested for non-document forward shipments.
128124	Hard	Invalid blanket period.
128125	Hard	Invalid or missing ShipFrom tax identification.
128126	Hard	Invalid or missing SED filing option. SED filing option is required when SED form is requested. Valid values are 01 and 02.
128201	Hard	Invalid international forms form type for shipment with

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Code	Severity	Explanation
		return service. Valid value is 01.
128202	Hard	International forms can not be requested for letters or documents.
129058	Hard	Shipper Number {0} does not support pallet Contract Service.
129059	Hard	Shipper Number {0} does not support Third Country Contract Service.
129076	Hard	Pallets may not be included with other package types.
129077	Warning	A dimensional surcharge has been added to pallet {0}.
129078	Hard	The maximum dimensions for a pallet are 200 cm by 160 cm by 120 cm .
129079	Hard	The requested service is not valid with pallets with a weight greater than 1000kg. Please select Dedicated Package Courier Same Day Service.
129080	Hard	Pallet {0} exceeds maximum width.
129081	Hard	Pallet {0} exceeds maximum height.
129082	Hard	Pallet {0} exceeds maximum length.
129083	Hard	Pallet {0} exceeds maximum weight.
120971	Warning	Your invoice may vary from the displayed reference rates
129090	Hard	Only future date pickup is available for pickup requests for the requested origin and destination and selected service

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Customer Integration Environment

The Customer Integration Environment (CIE) allows customers to test their application prior to launch. This environment is intended for integration testing of customer applications with the UPS servers. No stress testing should ever be performed by customers against any UPS systems.

Once your application has been thoroughly tested, you should redirect the application to the UPS Production Environment.

Please note that while CIE maintains system availability 24 hours, 7 days each week, there are occasional system down times to allow for server maintenance.

Negotiated Rates

Negotiated Rates are available in the UPS Customer Integration Environment (CIE) and are returned when the Negotiated Rate indicator is provided in the ShipConfirm request. The Negotiated Rates returned *do not reflect the contractual rate and may vary.* (A flat 1% discount is returned)

Also in the Customer Integration Environment the shipper eligibility for Negotiated Rates is not fully verified. For shipper eligibility requirements refer to Negotiated Rates section within UPS Rates & Service Guide.

Shipping

Test your Shipping application using valid and invalid date elements including postal codes, weights and package types. This will ensure that your application has the ability to process success and error responses correctly.

Verifying Shipping Rates

Shipping rates quoted are estimates based on the information supplied. Other shipping charges may apply and the final shipping charge may differ depending upon UPS Account Number and how the package is tendered to UPS. Please see the applicable UPS Rate and Service Guide for details.

When comparing shipment charges between applications and tools providing UPS rates, be sure that the requests are identical. Working through any discrepancies will require knowledge of all parameters posted along with defaults, numeric rounding, and rate table used by the applications being compared.

For more information on UPS Services, refer to the UPS Service Guide at:

http://www.ups.com/using/svc-index.html.

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You can check your results against the UPS Quick Cost Calculator™ web application located at:

http://wwwapps.ups.com/servlet/QCCServlet

For integration testing, you should direct your test Shipping software to:

https://wwwcie.ups.com/ups.app/xml/ShipConfirm

Once you have completed your testing and Certification, you should direct your software to:

https://onlinetools.ups.com/ups.app/xml/ShipConfirm

System Availability

The Customer Integration Environment is available 24 hours a day, 7 days a week.

Server Availability Check

All of the UPS services work using HTTPS POST. Using the same URL as you point your application to, perform an HTTPS GET. If the server is available, it will reply with the service name, remote user, server port, server name, and servlet path. To see this in action, type the following URL in your web browser:

https://wwwcie.ups.com/ups.app/xml/ShipConfirm

The following will be returned:

Service Name: ShipConfirm
Remote User: null
Server Port: 443
Server Name: wwwcie.ups.com
Servlet Path: /ShipConfirm

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Appendix A: Sample Shipping and Return Labels

The following figures show sample shipping and return labels that UPS provides.

Figure 22. Sample Shipping Label

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Figure 23. Sample Return Label

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Appendix B: Shipping and Tracking Numbers for Void Testing

UPS has set aside several shipping identification and tracking numbers to help developers test their applications. These special numbers are only valid with the Customer Integration Environment at wwwcie.ups.com. The following table lists those special numbers and describes the results that developers should expect when attempting a VoidShipmentRequest. For each test case, the first number listed is a shipment identification number; additional numbers, if present, are tracking numbers.

Note that only these numbers may be used in the Customer Integration Environment when voiding shipments.

Number(s)	Description	Expected Result
1Z12345E0390817264	Single package shipment sent via UPS Ground.	Request is processed, and shipment is voided.
1Z12345E0193075279	Single package shipment sent via Next Day Air.	Request is processed, and shipment is voided.
1Z12345E0392508488	Single package shipment sent via UPS Ground for which the allotted time period for voiding the shipment has expired.	Error 190101, Time for voiding has expired.
1Z12345E1290420899	Shipment that has already been picked up by the UPS service provider.	Error 190103, A completed order cannot be voided.
1Z12345E0390856432	Shipment that can be voided at the shipment level.	A successful shipment voided XML response will be returned for a shipment level void request.
1Z12345E0193081456	Shipment that can be voided at the shipment level.	A successful shipment voided XML response will be returned for a shipment level void request.
1Z12345E1234567890, 1Z12345E1234567890	Multi-package shipment where the request will void only one of the packages associated with the shipment.	A successful shipment partially voided XML response will be returned for a package level void request. The request will void only one of multiple packages in the shipment. The shipment will be "partially" voided.
1Z12345E2318693258, 1Z12345E0193072168	Multi-package shipment with all, save one, of the packages already voided. The request will void the remaining package.	A successful shipment voided XML response will be returned for a package level void request. The request will void the only remaining package in the shipment. The shipment will be completely voided.
1Z12345E1234567890,	Multi-package shipment	A successful shipment

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1Z12345E8635481269, 1Z12345E1593518308	with a package that cannot be voided.	partially voided XML response will be returned for a package level void request. Tracking number 1Z12345E1593518308 will not be voided.
1Z12345E2318693258, 1Z12345E0390819985, 1Z12345E0193078536	Multi-package shipment with two packages that remain unvoided.	A successful shipment voided XML response will be returned for a package level void request. The request will void all of the remaining packages in the shipment. The shipment will be completely voided.
1Z12345E8793628675	A shipment uploaded more than 28 days previously.	A failed XML response will be returned. Error Code 190101, Time for voiding has expired.
1Z12345E1234567890, 1Z12345E0392508253	This tracking number does not belong to the shipment.	Package void will fail to void any packages when an invalid package tracking number is provided. A failed XML response will be returned. Error Code 190110, Invalid Package Void.
1Z12345E2318693258, 1Z12345E0392506486	Return shipment.	Return shipments cannot be voided at the package level. A failed XML response will be returned. Error Code 190112, Return Service Shipments cannot be Voided at the Package Level.

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Appendix C: UPS Service Codes

UPS offers a wide variety of package delivery services. The following tables list the service code values for these services; they are ordered by the origin of the shipment. The final table lists service codes for freight shipments. For more information on UPS services, refer to the latest *UPS Rate and Service Guide* available at http://www.ups.com.

Code	United States Domestic Shipments
01	UPS Next Day Air®
02	UPS Second Day Air®
03	UPS Ground
12	UPS Three-Day Select®
13	UPS Next Day Air Saver®
14	UPS Next Day Air® Early A.M.℠
59	UPS Second Day Air A.M.®
65	UPS Saver

Code	Shipments Originating in United States
01	UPS Next Day Air®
02	UPS Second Day Air®
03	UPS Ground
07	UPS Worldwide Express℠
08	UPS Worldwide Expedited℠
11	UPS Standard
12	UPS Three-Day Select®
14	UPS Next Day Air® Early A.M.℠
54	UPS Worldwide Express Plus℠
59	UPS Second Day Air A.M.®
65	UPS Saver

Code	Shipments Originating in Puerto Rico
01	UPS Next Day Air®
02	UPS Second Day Air®
03	UPS Ground
07	UPS Worldwide Express℠
08	UPS Worldwide Expedited℠
14	UPS Next Day Air® Early A.M.℠
54	UPS Worldwide Express Plus℠
65	UPS Saver

Code	Shipments Originating in Canada
01	UPS Express
07	UPS Worldwide Express℠
08	UPS Worldwide Expedited℠
11	UPS Standard
12	UPS Three-Day Select®
13	UPS Saver℠
14	UPS Express Early A.M.℠

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Code	Shipments Originating in Mexico
07	UPS Express
08	UPS Expedited℠
54	UPS Express Plus
65	UPS Saver

Code	Polish Domestic Shipments
07	UPS Express
08	UPS Expedited℠
11	UPS Standard
54	UPS Worldwide Express Plus℠
65	UPS Saver
82	UPS Today Standard℠
83	UPS Today Dedicated Courrier℠
84	UPS Today Intercity
85	UPS Today Express
86	UPS Today Express Saver

Code	Shipments Originating in the European Union
07	UPS Express
08	UPS Expedited℠
11	UPS Standard
54	UPS Worldwide Express Plus℠
65	UPS Saver

Code	Shipments Originating in Other Countries
07	UPS Express
08	UPS Worldwide Expedited℠
11	UPS Standard
54	UPS Worldwide Express Plus℠
65	UPS Saver

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Appendix D: Reference Number Codes

Shipments and packages may include a reference number. The type of reference number may be indicated by a reference number code. The following table lists the reference number code values.

Code	Reference Number Type
AJ	Accounts Receivable Customer Account
AT	Appropriation Number
BM	Bill of Lading Number
9V	Collect on Delivery (COD) Number
ON	Dealer Order Number
DP	Department Number
3Q	Food and Drug Administration (FDA) Product Code
IK	Invoice Number
MK	Manifest Key Number
MJ	Model Number
PM	Part Number
PC	Production Code
PO	Purchase Order Number
RQ	Purchase Request Number
RZ	Return Authorization Number
SA	Salesperson Number
SE	Serial Number
ST	Store Number
TN	Transaction Reference Number

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Appendix E: Country Codes

UPS country code abbreviations generally follow the recommendations of the International Standards Organization, which publishes a list of currency abbreviations in ISO Standard 3166. The following table lists the ISO country codes that ISO had defined when this document was published. The latest information is available from the ISO web site.

Please note that not all UPS services are available in every country. For more information on UPS services, refer to the latest *UPS Rate and Service Guide* available at http://www.ups.com.

Country	Code	Forward Origin	Return Origin
Afghanistan	AF		
Åland Islands	AX		
Albania	AL		Yes
Algeria	DZ		
American Samoa	AS		
Andorra	AD		Yes
Angola	AO		
Anguilla	AI		Yes
Antarctica	AQ		
Antigua and Barbados	AG		Yes
Argentina	AR	Yes	Yes
Armenia	AM		
Aruba	AW		
Australia	AU	Yes	Yes
Austria	AT	Yes	Yes
Azerbaijan	AZ		
Bahamas	BS		
Bahrain	BH		
Bangladesh	BD		
Barbados	BB		
Belarus	BY		
Belgium	BE	Yes	Yes
Belize	BZ		
Benin	BJ		
Bermuda	BM		
Bhutan	BT		
Bolivia	BO		
Bosnia and Herzegovina	BA		
Botswana	BW		
Bouvet Island	BV		
Brazil	BR	Yes	Yes
British Indian Ocean Territory	IO		
Brunei Darussalam	BN		
Bulgaria	BG		Yes
Burkina Faso	BF		
Burundi	BI		
Cambodia	KH		
Cameroon	CM		
Canada	CA	Yes	Yes

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Country	Code	Forward Origin	Return Origin
Cape Verde	CV		
Cayman Islands	KY		
Central African Republic	CF		
Chad	TD		
Chile	CL	Yes	Yes
China	CN	Yes	Yes
Christmas Island	CX		
Cocos (Keeling) Islands	CC		
Colombia	CO		Yes
Comoros	KM		
Congo	CG		
Congo, The Democratic Republic of	CD		
Cook Islands	CK		
Costa Rica	CR	Yes	Yes
Côte D'ivoire	CI		
Croatia	HR		Yes
Cuba	CU		
Cyprus	CY		Yes
Czech Republic	CZ	Yes	Yes
Denmark	DK	Yes	Yes
Djibouti	DJ		
Dominica	DM		
Dominican Republic	DO	Yes	Yes
Ecuador	EC		Yes
Egypt	EG		
El Salvador	SV		Yes
Equatorial Guinea	GQ		
Eritrea	ER		
Estonia	EE		Yes
Ethiopia	ET		
Falkland Islands (Malvinas)	FK		
Faroe Islands	FO		
Fiji	FJ		
Finland	FI	Yes	Yes
France	FR	Yes	Yes
French Guiana	GF		
French Polynesia	PF		
French Southern Territories	TF		
Gabon	GA		
Gambia	GM		
Georgia	GE		
Germany	DE	Yes	Yes
Ghana	GH		
Gibraltar	GI		
Greece	GR	Yes	Yes
Greenland	GL		
Grenada	GD		Yes
Guadeloupe	GP		
Guam	GU		
Guatemala	GT	Yes	Yes
Guernsey	GG		
Guinea	GN		
Guinea-Bissau	GW		
Guyana	GY		

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Country	Code	Forward Origin	Return Origin
Haiti	HT		Yes
Heard Island and Mcdonald Islands	HM		
Holy See (Vatican City State)	VA		
Honduras	HN		Yes
Hong Kong	HK	Yes	Yes
Hungary	HU	Yes	Yes
Iceland	IS		Yes
India	IN	Yes	Yes
Indonesia	ID	Yes	Yes
Iran, Islamic Republic of	IR		
Iraq	IQ		
Ireland	IE	Yes	Yes
Isle of Man	IM		
Israel	IL	Yes	Yes
Italy	IT	Yes	Yes
Jamaica	JM		Yes
Japan	JP	Yes	Yes
Jersey	JE		
Jordan	JO		
Kazakhstan	KZ		
Kenya	KE		
Kiribati	KI		
Korea, Democratic People's Republic of	KP		
Korea, Republic of	KR	Yes	Yes
Kuwait	KW		
Kyrgyzstan	KG		
Lao People's Democratic Republic	LA		
Latvia	LV		Yes
Lebanon	LB		Yes
Lesotho	LS		
Liberia	LR		
Libyan Arab Jamahiriya	LY		
Liechtenstein	LI		Yes
Lithuania	LT		Yes
Luxembourg	LU		Yes
Macao	MO	Yes	Yes
Macedonia, The Former Yugoslav Republic of	MK		
Madagascar	MG		
Malawi	MW		
Malaysia	MY	Yes	Yes
Maldives	MV		
Mali	ML		
Malta	MT		Yes
Marshall Islands	MH		
Martinique	MQ		Yes
Mauritania	MR		
Mauritius	MU		
Mayotte	YT		
Mexico	MX	Yes	Yes
Micronesia, Federated States of	FM		
Moldova, Republic of	MD		
Monaco	MC		Yes
Mongolia	MN		
Montenegro	ME		Yes

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Country	Code	Forward Origin	Return Origin
Montserrat	MS		Yes
Morocco	MA		
Mozambique	MZ		
Myanmar	MM		
Namibia	NA		
Nauru	NR		
Nepal	NP		
Netherlands	NL	Yes	Yes
Netherlands Antilles	AN		
New Caledonia	NC		
New Zealand	NZ	Yes	Yes
Nicaragua	NI		Yes
Niger	NE		
Nigeria	NG		
Niue	NU		
Norfolk Island	NF		
Northern Mariana Islands	MP		
Norway	NO	Yes	Yes
Oman	OM		
Pakistan	PK		
Palau	PW		Yes
Palestinian Territory, Occupied	PS		
Panama	PA	Yes	Yes
Papua New Guinea	PG		
Paraguay	PY		Yes
Peru	PE		Yes
Philippines	PH	Yes	Yes
Pitcairn	PN		
Poland	PL	Yes	Yes
Portugal	PT	Yes	Yes
Puerto Rico	PR	Yes	Yes
Qatar	QA		
Réunion	RE		
Romania	RO		Yes
Russian Federation	RU		Yes
Rwanda	RW		
Saint Helena	SH		
Saint Kitts and Nevis	KN		Yes
Saint Lucia	LC		Yes
Saint Pierre and Miquelon	PM		
Saint Vincent and The Grenadines	VC		Yes
Samoa	WS		
San Marino	SM		Yes
Sao Tome and Principe	ST		
Saudi Arabia	SA		Yes
Senegal	SN		
Serbia	RS		Yes
Seychelles	SC		
Sierra Leone	SL		
Singapore	SG	Yes	Yes
Slovakia	SK		Yes
Slovenia	SI		Yes
Solomon Islands	SB		
Somalia	SO		

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Country	Code	Forward Origin	Return Origin
South Africa	ZA		Yes
South Georgia and The South Sandwich Islands	GS		
Spain	ES	Yes	Yes
Sri Lanka	LK		Yes
Sudan	SD		
Suriname	SR		Yes
Svalbard and Jan Mayen	SJ		
Swaziland	SZ		
Sweden	SE	Yes	Yes
Switzerland	CH	Yes	Yes
Syrian Arab Republic	SY		
Taiwan, Province of China	TW	Yes	Yes
Tajikistan	TJ		
Tanzania, United Republic of	TZ		
Thailand	TH	Yes	Yes
Timor-Leste	TL		
Togo	TG		
Tokelau	TK		
Tonga	TO		
Trinidad and Tobago	TT		
Tunisia	TN		Yes
Turkey	TR	Yes	Yes
Turkmenistan	TM		
Turks and Caicos Islands	TC		Yes
Tuvalu	TV		
Uganda	UG		
Ukraine	UA		Yes
United Arab Emirates	AE		
United Kingdom	GB	Yes	Yes
United States	US	Yes	Yes
United States Minor Outlying Islands	UM		
Uruguay	UY		Yes
Uzbekistan	UZ		
Vanuatu	VU		
Venezuela	VE		Yes
Viet Nam	VN	Yes	
Virgin Islands, British	VG		
Virgin Islands, U.S.	VI		Yes
Wallis and Futuna	WF		
Western Sahara	EH		
Yemen	YE		
Zambia	ZM		
Zimbabwe	ZW		

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Appendix F: Currency Codes

UPS currency code abbreviations generally follow the recommendations of the International Standards Organization, which publishes a list of currency abbreviations in ISO Standard 4217, for which the latest information is available from the ISO web site. Exceptions are noted in bold in the table below.

Note that countries sometimes change their official currency. UPS may require some time after the introduction of a new currency before it can fully support that currency. In addition, UPS may continue to support the older currency for an interim period in order to provide backwards compatibility. UPS may also require the use of currencies other than the official currency for some countries. For the latest information, please contact your UPS OnLine Tools representative.

Country / Region	Currency	Code
Afghanistan	Afghani	AFN
Albania	Lek	ALL
Algeria	Algerian Dinar	DZD
American Samoa	US Dollar	USD
Andorra	Euro	EUR
Angola	Kwanza	AOA
Anguilla	East Caribbean Dollar	XCD
Antigua And Barbuda	East Caribbean Dollar	XCD
Argentina	Argentine Peso	ARS
Armenia	Armenian Dram	AMD
Aruba	Aruban Guilder	AWG
Australia	Australian Dollar	AUD
Austria	Euro	EUR
Azerbaijan	Azerbaijanian Manat	AZN
Bahamas	Bahamian Dollar	BSD
Bahrain	Bahraini Dinar	BHD
Bangladesh	Taka	BDT
Barbados	Barbados Dollar	BBD
Belarus	Belarussian Ruble	BYR
Belgium	Euro	EUR
Belize	Belize Dollar	BZD
Benin	CFA Franc BCEAO	XOF
Bermuda	Bermudian Dollar (customarily known as Bermuda Dollar)	BMD
Bhutan	Indian Rupee	INR
Bhutan	Ngultrum	BTN
Bolivia	Boliviano	BOB
	Mvdol	BOV

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Country / Region	Currency	Code
Bosnia & Herzegovina	Convertible Marks	BAM
Botswana	Pula	BWP
Bouvet Island	Norwegian Krone	NOK
Brazil	Brazilian Real	BRL
British Indian Ocean Territory	US Dollar	USD
Brunei Darussalam	Brunei Dollar	BND
Bulgaria	Bulgarian Lev	BGN
Burkina Faso	CFA Franc BCEAO	XOF
Burundi	Burundi Franc	BIF
Cambodia	Riel	KHR
Cameroon	CFA Franc BEAC	XAF
Canada	Canadian Dollar	CAD
Cape Verde	Cape Verde Escudo	CVE
Cayman Islands	Cayman Islands Dollar	KYD
Central African Republic	CFA Franc BEAC	XAF
Chad	CFA Franc BEAC	XAF
Chile	Chilean Peso	CLP
	Unidades de formento	CLF
China	Yuan Renminbi	RMB
Christmas Island	Australian Dollar	AUD
Cocos (Keeling) Islands	Australian Dollar	AUD
Colombia	Colombian Peso	COP
	Unidad de Valor Real	COU
Comoros	Comoro Franc	KMF
Congo	CFA Franc BEAC	XAF
Congo, The Democratic Republic of	Franc Congolais	CDF
Cook Islands	New Zealand Dollar	NZD
Costa Rica	Costa Rican Colon	CRC
Côte D'ivoire	CFA Franc BCEAO	XOF
Croatia	Croatian Kuna	HRK
Cuba	Cuban Peso	CUP
Cyprus	Cyprus Pound	CYP
Czech Republic	Czech Koruna	CZK
Denmark	Danish Krone	DKK
Djibouti	Djibouti Franc	DJF
Dominica	East Caribbean Dollar	XCD
Dominican Republic	Dominican Peso	DOP
Ecuador	US Dollar	USD
Egypt	Egyptian Pound	EGP
El Salvador	El Salvador Colon	SVC
	US Dollar	USD
Equatorial Guinea	CFA Franc BEAC	XAF

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Country / Region	Currency	Code
Eritrea	Nakfa	ERN
Estonia	Kroon	EEK
Ethiopia	Ethiopian Birr	ETB
Falkland Islands (Malvinas)	Falkland Islands Pound	FKP
Faroe Islands	Danish Krone	DKK
Fiji	Fiji Dollar	FJD
Finland	Euro	EUR
France	Euro	EUR
French Guiana	Euro	EUR
French Polynesia	CFP Franc	XPF
French Southern Territories	Euro	EUR
Gabon	CFA Franc BEAC	XAF
Gambia	Dalasi	GMD
Georgia	Lari	GEL
Germany	Euro	EUR
Ghana	Cedi	GHC
Gibraltar	Gibraltar Pound	GIP
Greece	Euro	EUR
Greenland	Danish Krone	DKK
Grenada	East Caribbean Dollar	XCD
Guadeloupe	Euro	EUR
Guam	US Dollar	USD
Guatemala	Quetzal	GTQ
Guinea	Guinea Franc	GNF
Guinea-Bissau	Guinea-Bissau Peso	GWP
	CFA Franc BCEAO	XOF
Guyana	Guyana Dollar	GYD
Haiti	Gourde	HTG
Haiti	US Dollar	USD
Heard Island ond Mcdonald Islands	Australian Dollar	AUD
Holy See (Vatican City State)	Euro	EUR
Honduras	Lempira	HNL
Hong Kong	Hong Kong Dollar	HKD
Hungary	Forint	HUF
Iceland	Iceland Krona	ISK
India	Indian Rupee	INR
Indonesia	Rupiah	IDR
Iran (Islamic Republic of)	Iranian Rial	IRR
Iraq	Iraqi Dinar	IQD
Ireland	Euro	EUR
Israel	New Israeli Sheqel	ILS
Italy	Euro	EUR

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Country / Region	Currency	Code
Jamaica	Jamaican Dollar	JMD
Japan	Yen	JPY
Jordan	Jordanian Dinar	JOD
Kazakhstan	Tenge	KZT
Kenya	Kenyan Shilling	KES
Kiribati	Australian Dollar	AUD
Korea, Democratic People's Republic of	North Korean Won	KPW
Korea, Republic of	Won	KRW
Kuwait	Kuwaiti Dinar	KWD
Kyrgyzstan	Som	KGS
Lao People's Democratic Republic	Kip	LAK
Latvia	Latvian Lats	LVL
Lebanon	Lebanese Pound	LBP
Lesotho	Rand	ZAR
	Loti	LSL
Liberia	Liberian Dollar	LRD
Libyan Arab Jamahiriya	Libyan Dinar	LYD
Liechtenstein	Swiss Franc	CHF
Lithuania	Lithuanian Litas	LTL
Luxembourg	Euro	EUR
Macao	Pataca	MOP
Macedonia, The Former Yugoslav Republic of	Denar	MKD
Madagascar	Malagascy Ariary	MGA
Malawi	Kwacha	MWK
Malaysia	Malaysian Ringgit	MYR
Maldives	Rufiyaa	MVR
Mali	CFA Franc BCEAO	XOF
Malta	Maltese Lira	MTL
Marshall Islands	US Dollar	USD
Martinique	Euro	EUR
Mauritania	Ouguiya	MRO
Mauritius	Mauritius Rupee	MUR
Mayotte	Euro	EUR
Mexico	Mexican Peso	MXN
	Mexican Unidad de Inversion (UID)	MXV
Micronesia (Federated States of)	US Dollar	USD
Moldova, Republic of	Moldovan Leu	MDL
Monaco	Euro	EUR
Mongolia	Tugrik	MNT

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Country / Region	Currency	Code
Montenegro	Euro	EUR
Montserrat	East Caribbean Dollar	XCD
Morocco	Moroccan Dirham	MAD
Mozambique	Metical	MZN
Myanmar	Kyat	MMK
Namibia	Rand	ZAR
	Namibian Dollar	NAD
Nauru	Australian Dollar	AUD
Nepal	Nepalese Rupee	NPR
Netherlands	Euro	EUR
Netherlands Antilles	Netherlands Antillian Guilder	ANG
New Caledonia	CFP Franc	XPF
New Zealand	New Zealand Dollar	NZD
Nicaragua	Cordoba Oro	NIO
Niger	CFA Franc BCEAO	XOF
Nigeria	Naira	NGN
Niue	New Zealand Dollar	NZD
Norfolk Island	Australian Dollar	AUD
Northern Mariana Islands	US Dollar	USD
Norway	Norwegian Krone	NOK
Oman	Rial Omani	OMR
Pakistan	Pakistan Rupee	PKR
Palau	US Dollar	USD
Panama	Balboa	PAB
	US Dollar	USD
Papua New Guinea	Kina	PGK
Paraguay	Guarani	PYG
Peru	Nuevo Sol	PEN
Philippines	Philippine Peso	PHP
Pitcairn	New Zealand Dollar	NZD
Poland	Zloty	PLN
Portugal	Euro	EUR
Puerto Rico	US Dollar	USD
Qatar	Qatari Rial	QAR
Réunion	Euro	EUR
Romania	New Leu	RON
Russian Federation	**Russian Ruble**	**RUB**
Rwanda	Rwanda Franc	RWF
Saint Helena	Saint Helena Pound	SHP
Saint Kitts and Nevis	East Caribbean Dollar	XCD
Saint Lucia	East Caribbean Dollar	XCD
Saint Pierre and Miquelon	Euro	EUR
Saint Vincent and The	East Caribbean Dollar	XCD

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Country / Region	Currency	Code
Grenadines		
Samoa	Tala	WST
San Marino	Euro	EUR
São Tome and Principe	Dobra	STD
Saudi Arabia	Saudi Riyal	SAR
Senegal	CFA Franc BCEAO	XOF
Serbia	Serbian Dinar	RSD
Seychelles	Seychelles Rupee	SCR
Sierra Leone	Leone	SLL
Singapore	Singapore Dollar	SGD
Slovakia	Slovak Koruna	SKK
Slovenia	Euro	EUR
Solomon Islands	Solomon Islands Dollar	SBD
Somalia	Somali Shilling	SOS
South Africa	Rand	ZAR
Spain	Euro	EUR
Sri Lanka	Sri Lanka Rupee	LKR
Sudan	Sudanese Dinar	SDD
Suriname	Surinam Dollar	SRD
Svalbard and Jan Mayen	Norwegian Krone	NOK
Swaziland	Lilangeni	SZL
Sweden	Swedish Krona	SEK
Switzerland	Swiss Franc	CHF
	WIR Franc	CHW
	WIR Euro	CHE
Syrian Arab Republic	Syrian Pound	SYP
Taiwan, Province of China	New Taiwan Dollar	TWD
Tajikistan	Somoni	TJS
Tanzania, United Republic of	Tanzanian Shilling	TZS
Thailand	Baht	THB
Timor-Leste	US Dollar	USD
Togo	CFA Franc BCEAO	XOF
Tokelau	New Zealand Dollar	NZD
Tonga	Pa'anga	TOP
Trinidad And Tobago	Trinidad and Tobago Dollar	TTD
Tunisia	Tunisian Dinar	TND
Turkey	New Turkish Lira	TRY
Turkmenistan	Manat	TMM
Turks And Caicos Islands	US Dollar	USD
Tuvalu	Australian Dollar	AUD
Uganda	Uganda Shilling	UGX
Ukraine	Hryvnia	UAH
United Arab Emirates	UAE Dirham	AED

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Country / Region	Currency	Code
United Kingdom	Pound Sterling	GBP
United States	US Dollar	USD
United States Minor Outlying Islands	US Dollar	USD
Uruguay	Peso Uruguayo	UYU
	Uruguay Peso en Unidades Indexadas	UYI
Uzbekistan	Uzbekistan Sum	UZS
Vanuatu	Vatu	VUV
Venezuela	Bolivar	VEB
Viet Nam	Dong	VND
Virgin Islands (British)	US Dollar	USD
Virgin Islands (US)	US Dollar	USD
Wallis And Futuna	CFP Franc	XPF
Western Sahara	Moroccan Dirham	MAD
Yemen	Yemeni Rial	YER
Zambia	Kwacha	ZMK
Zimbabwe	Zimbabwe Dollar	ZWD

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Appendix G: Export License Exception Codes

License exception codes may be used in lieu of an export license in Shipper Export Declaration (SED) forms. The following table lists the defined export codes.

Code	License Exception
AGR	Established for agricultural commodities to permit exports and re-exports to Cuba that is not specifically identified on the Commerce Control List (CCL) and is classified as EAR99.
APR	Items for export or re-export not controlled for nuclear nonproliferation, missile technology or crime control.
AVS	U.S. aircraft or foreign sojourn into foreign country.
BAG	Individual or exporting carriers crew members baggage.
CIV	National security items for civil end users.
CTP	Computer and parts of.
ENC	Encrypted software and hardware - financial institutions.
GBS	Export or re-export of Country Group B; controlled for national security reasons.
GFT	Gift shipments; packages to individuals, religious, charitable or education institutions, donations of basic needs.
GOV	Government shipments, covers shipments for U.S. government agencies, personnel or of cooperating foreign governments.
KMI	Encrypted software and hardware.
LVS	Value of shipments limited.
NLR	No license required.
RPL	Servicing and replacement of parts and equipment, one for one replacement parts service or replacement of equipment.
TMP	Temporary exports, export and re-export of items temporary in U.S., export and re-export of beta test software.
TSPA	Software or technology outside the scope of export regulations.
TSR	Technology and software, national security reason, Country Group B.
TSU	Technology and software shipments, of basic requirements, data supporting prospective or actual bids, offers to sell, lease or supply an item. Software update for fixing programs, mass marketed software.

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Appendix H: International Forms Preference Criteria

Preference criteria are required in North American Free Trade Agreement Certificate of Origin (NAFTA CO) documents. The following table lists the defined criteria and their use.

Criteria	Meaning
A	The good is "wholly obtained or produced entirely" in the territory of one or more of the NAFTA countries as referenced in Article 415. Note: The purchase of a good in the territory does not necessarily render it "wholly obtained or produced." If the good is an agricultural good, see also criterion F and Annex 703.2. (Reference: Article 401(a) and 415)
B	The good is produced entirely in the territory of one or more of the NAFTA countries and satisfies the specific rule of origin, set out in Annex 401, that applies to its tariff classification. The rule may include a tariff classification change, regional value-content requirement, or a combination there-of. The good must also satisfy all other applicable requirements of Chapter Four. If the good is an agricultural good, see also criterion F and Annex 703.2. (Reference: Article 401(b))
C	The good is produced entirely in the territory of one or more of the NAFTA countries exclusively from originating materials. Under this criterion, one or more of the materials may not fall within the definition of "wholly produced or obtained," as set out in Article 415. All materials used in the production of the good must qualify as "originating" by meeting the rules of Article 401(a) through (d). If the good is an agricultural good, see also criterion F and Annex 703.2. Reference: Article 401(c).
D	Goods are produced in the territory of one or more of the NAFTA countries but do not meet the applicable rule of origin, set out in Annex 401, because certain non-originating materials do not undergo the required change in tariff classification. The goods do nonetheless meet the regional value-content requirement specified in Article 401 (d). This criterion is limited to the following two circumstances: (1) The good was imported into the territory of a NAFTA country in an unassembled or disassembled form but was classified as an assembled good, pursuant to H.S. General Rule of Interpretation 2(a). or (2) .The good incorporated one or more non-originating materials, provided for as parts under the H.S., which could not undergo a change in tariff classification because the heading provided for both the good and its parts and was not further subdivided into subheadings, or the subheading provided for both the good and its parts and was not further subdivided. Note: This criterion does not apply to Chapters 61 through 63 of the H.S. (Reference: Article 401(d))
E	Certain automatic data processing goods and their parts, specified in Annex 308.1, that do not originate in the territory are considered originating upon importation into the territory of a NAFTA country from the territory of another NAFTA country when the most-favored-nation tariff rate of the good conforms to the rate established in Annex 308.1 and is common to all NAFTA countries. (Reference: Annex 308.1)
F	The good is an originating agricultural good under preference criterion A, B, or C above and is not subject to a quantitative restriction in the

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Criteria	Meaning
	importing NAFTA country because it is a "qualifying good" as defined in Annex 703.2, Section A or B (please specify). A good listed in Appendix 703.2B.7 is also exempt from quantitative restrictions and is eligible for NAFTA preferential tariff treatment if it meets the definition of "qualifying good" in Section A of Annex 703.2. Note: This criterion does not apply to goods that wholly originate in Canada or the United States and are imported into either country. Note: A tariff rate quota is not a quantitative restriction.

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Appendix I: Countries that Accept Paperless Invoices

The following table lists those countries that support paperless (electronic submission) invoices.

Albania
Angola
Argentina
Austria
Bahamas
Barbados
Belarus
Belgium
Bermuda
Bhutan
Bolivia
Bosnia
Brazil
Canada
China
Colombia
Costa Rica
Czech Republic
Denmark
Djibouti
Dominican Rep
Ecuador
El Salvador
Estonia
Finland
France
Gambia
Georgia
Germany
Great Britain
Greece
Guam
Guatemala
Guyana
Honduras
Hong Kong
Hungary
India
Ireland
Israel
Italy
Jamaica
Japan
Kazakhstan
Kirghizia
Latvia
Libya
Lithuania
Luxembourg
Macau
Malaysia
Malta
Marshall Islands
Mauritania

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Mexico
Nepal
Netherland Antilles
Netherlands
New Zealand
Nicaragua
Norway
Panama
Paraguay
Peru
Philippines
Poland
Portugal
Puerto Rico
Reunion Is
Saudi Arabia
Serbia & Montenegro
Singapore
Slovenia
South Korea
Spain
Sweden
Taiwan
Tanzania
Thailand
Timor Leste
Trinidad & Tobago
United Arab Emirates
United States
Uruguay
Uzbekistan

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Index

A

AccessRequest....30
Adobe Acrobat
  Document....12
Application
  Database....11
  Dedicated....11
  Document....12
  Type....11
  Web....12

B

Base64....21
Branding....12

C

Cancellation....26
Certification....15–16, 15–16
Country Codes....92, 107
Currency Codes....97
Customer Integration Environment....87

D

Database Application....11
Dedicated Application....11

E

Element....21
Extensible Markup Language....20
  Example....20
  Standard....22

F

Forward Shipment....26

H

HTTP....See Hypertext Transfer Protocol
Hypertext Transfer Protocol....17–20

J

Java....13, 19–20, 24
Java API for XML Processing....13, 24
Java Enterprise Edition....13
Java Standard Edition....13
java.net....13
JAXP....See Java API for XML Processing

L

libcurl....13, 20
License Exception Codes....104

M

Microsoft
  Office Document....12
  Visual Basic....19, 23–24
  Visual Studio....13, 19, 23
  XML Core Services....13, 19, 23
MSXML....See XML Core Services

O

Open Source....13, 20, 25
Outbound Shipment....26

P

Paperless Invoice....107
POST....17
Preference Criteria....105

R

Reference Number Codes....89, 91
Return Label Sample....85
Return Shipment....26

S

Secure Sockets Layer....17–20
ShipmentAcceptRequest....27
  Return Shipment....57
ShipmentAcceptResponse....27
ShipmentConfirmRequest....27
ShipmentConfirmResponse....27
Shipping Label Sample....85
Shipping Number
  Test Values....87
SSL....See Secure Sockets Layer

T

Tag....21
Technical Support....14
Tracking Number
  Test Values....87

U

Uniform Resource Locator....18
URL....*See* Uniform Resource Locator
URL Class....13
User Profile....16

V

Visual Basic....19, 23–24
Visual Studio....13, 19, 23
VoidShipment....28

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VoidShipmentResponse 61

W

Web Application 12
World Wide Web Consortium 22

X

xerces 13, 25
XML Core Services 13, 19, 23

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