



UPS OnLine® Tools  
**Rates and Service Selection**  
XML Programming Information

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## Rates and Service Selection

### Notice

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UPS ONLINE TOOLS

# Welcome



## Welcome

Welcome to the *UPS OnLine<sup>®</sup> Tools Developer's Guide*. This guide explains how to integrate your e-commerce applications with the installation of UPS OnLine Tools, XML version. You may visit your country's UPS E-Business web site for more information about UPS Rates & Service Selection Tool.

### Contents at a Glance

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- “Product Overview” provides an introduction to the UPS OnLine Tools.
- “General Programming Information” provides essential information on integrating your e-commerce applications with UPS OnLine Tools.
- “Rates & Service Selection Programming Information” provides technical information about XML Requests and Responses for the UPS Rates & Service Selection Tool.
- “Customer Integration” describes the process for integration testing of your application.
- “Appendices” contains the glossary, tables, and frequently asked questions (FAQs).
- “Bibliography” contains reference materials for this guide.



UPS ONLINE TOOLS

# Product Overview



## Product Overview

### UPS Rates & Service Selection

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#### Introduction

If your customers want flexibility and control when shipping their online purchases, your e-commerce site needs UPS Rates & Service Selection. This powerful UPS OnLine Tool lets online shoppers compare, price and select shipping services that best fit their needs and budgets. For example, your customers can choose express services, like UPS Next Day Air, when they need their packages right away and standard services, like UPS Ground, when they have more time for delivery.

The UPS Rates & Service Selection Tool is available in a basic HTML version as well as a more advanced, XML version. The HTML tool lets you simply copy HTML code into your Web page to gain the functionality and look of UPS Rates & Service Selection. The XML tool gives you greater flexibility by allowing you to format the rates and services selection data to suit your Web site or application's design and layout.

For single packages, shipped from 36 origin countries to destinations around the world, the UPS Rates & Service Selection Tool identifies all the available UPS domestic and international services and displays shipping rates based on a package's specifications. It can be used to dynamically generate a list of shipping services tailored for your customers' shipments. You can also use the UPS Rates & Service Selection Tool to create easy-to-understand menus from which your online customers can select a shipping method.

With UPS Rates & Service Selection, You Can:

- **Generate specific shipping charges for each of your customer's orders, including any shipping option they may choose.**

Your Customers Can:

- **Find accurate service and rate information from UPS right on your Web site.**
- **Compare total shipping charges for different UPS service levels.**
- **Save money by choosing the right shipping option every time.**
- **Learn how much shipping will cost.**

For more information on UPS OnLine Tools, including UPS Rates & Service Selection, please visit your country's UPS E-Business web site.

#### Tool Overview

##### About Rates & Service Selection

The Rates & Service Selection validates and rates shipments from 36 origin countries to destinations around the world. A list of countries that support UPS Rates & Service Selection can be found in Appendix C. Based on the shipment's input characteristics (origin, destination, shipment weight), the tool provides the customer with a list of all applicable UPS services and their respective published rates.



## Rates and Service Selection

Along with the suite of UPS services, the UPS Rates & Service Selection Tool also supports the following customer-requested accessorials:

- Declared Value
- Saturday Pickup
- Saturday Delivery
- Additional Handling

## Maintaining Your Profile

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As your e-commerce needs continue to evolve, UPS OnLine Tools will evolve, too, offering more features and service benefits. Once you have registered to use UPS OnLine Tools, UPS will notify you by e-mail of updates and changes to the tools. It is essential that an accurate e-mail address for your company be maintained. In addition, it is recommended that you complete the secondary contact information as a back-up measure for receiving any updates and changes. This can be another individual or even group contact information (e.g. ACME Company – IT Group, ITGroup@ACME.com).

You should update your profile when changes occur or responsibilities for the Tools shift within your company. You can also return to the UPS e-commerce site to receive the latest updated information about UPS OnLine Tools.

## License Agreements

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The license agreements define the necessary business obligations of both UPS and the Licensee. Some of the reasons your entire team should be knowledgeable of the licensing requirements include:

- The license agreements have requirements that impact how programmers use and display information (e.g., regarding appropriate use of data and logos).
- The license agreements are different depending on how you use the UPS OnLine Tools (e.g., as an end-user or third party developer).

### Usage Requirements

As part of the UPS OnLine Tools legal agreements, users of the Tools have certain obligations that are spelled out within the Tools 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 the Usage Requirements of the Tools legal agreement accepted by your company. Reference your OnLine Tools legal agreement for complete details of both parties' obligations. The following highlights a few of these 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 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 Tool in a way that misrepresents the information or the functionality of the tool.

### **UPS Access and Review of End User Applications**

If you distribute your application as software, please provide UPS access to or a copy of your application (and/or any updates). If you host your application for the benefit of others, please provide the URL for each location of your application. If you build your own application, UPS might request the URL in order to review your application. UPS will review each appliance for compliance with the license agreement and the UPS Developer's Kit. You may not use the interfaces until UPS has provided you a written statement that the interfaces and their use in connection with your application are compatible with the UPS Systems and in compliance with the terms of the License Agreement. UPS maintains the right to test your interfaces, individually and as incorporated into your applications to verify that they have been designed in compliance with the License Agreement. You may be instructed to make changes to the application or the embedded interfaces for the application to pass UPS's review.

### **Data Integrity**

Within your applications, you must present all information returned by UPS within each data field without amendment, deletion or modification of any type.

## Security Elements

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To access the UPS OnLine Tools web site and use the product, several security elements are required including a UserID and Password, Developer Key and Access key. Some premium tools require additional information and special processes in order to be implemented. Various Tool users may be licensed and provided access to the products in different ways.

If you have licensed the tools through the "OnLine Tools" section of your country's UPS E-Business web site, all security elements will be obtained via the web site. If you have received the tools documents through other authorized means, your UPS OnLine Tools contact will provide you with the security elements you need to proceed. This document describes the process completed via the UPS OnLine Tools web site.

These security elements are confidential and can not be shared with other companies or third parties. Sharing these elements with third parties is strictly prohibited as expressed in the UPS OnLine Tools license agreements.

## Implementation of Security Elements

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In order to be authorized by UPS to obtain any Tool's documentation, you or someone in your company has already completed the appropriate UPS OnLine Tool's licensing process. These steps initially control your access to the technical documentation located within your country's UPS E-Business web site. Once you implement your Tool's enabled EC solution, various security elements must be provided to UPS systems at run-time. The following steps are needed for your software to effectively support the UPS licensing process:

1. Create a Tools UserID and Password.
2. License the Tools and receive your Developer Key.
3. Get a XML Access Key.



## Rates and Service Selection

4. Build your EC solution.
5. Test your EC solution.
6. Go into production with your Tool's enabled EC solution.

### 1. Create a Tools UserID and Password.

Customers integrating the UPS OnLine Tools must complete the registration process on the “OnLine Tools” section of their country’s E-Business web site to obtain a UserID and Password. This UserID controls access to the documentation and allows developers to stay informed about the latest OnLine Tools updates and enhancements. A UserID and Password will also be required with each input request a user makes to an UPS Server while using an XML Tool. It is important to note that every time a developer changes their password on the web site they will have to update any program that has the Tools embedded. It is recommended that users do not use an existing MyUPS UserID. UPS recommends you keep your MyUPS UserID separate from your Tools UserID.

For UPS Shipping and UPS Signature Tracking, additional data has to be associated with your UserID being passed with each transaction. For Shipping, you must have a valid Shipper Number(s) associated with the Registration UserID. For Signature Tracking you must have a PIN(s) associated with your Registration UserID. The special requirements are detailed in the Shipping and Signature Tracking Documentation. To be approved for either tool, a registered user submits a request form on the “OnLine Tools” section at their country’s UPS E-Business web site. If approved, users will be granted access to documentation for these tools through the web site.

For participants in the UPS OnLine Tools Third Party Developer Program or other advanced users that have a large number of Registration UserID's to set up, UPS can provide an XML interface to the Registration system.

### 2. License the Tools and receive your Developer Key.

As an end-user, you must login to your country’s UPS E-Business web site with your UserID and Password. A license agreement must be accepted on the “OnLine Tools” section at your country’s UPS E-Business web site before gaining access to the Tools documentation. After accepting the appropriate Tools licensing agreement, a Developer Key will be e-mailed to the registered user. You need to permanently save a copy of your Developer Key for future reference. A valid Developer Key is needed to obtain an Access Key and will be needed for technical support. The Developer Key identifies the company and contact that is building the EC solution.

### 3. Get an XML Access Key.

You must pass an XML Access Key with each input request to the UPS OnLine Tools server. You can obtain your XML Access Key on the “Access Key” section of your country’s UPS E-Business web site. A Developer Key is required to get an Access Key. Each Access Key identifies each site where the Tool has been deployed.

Once you review the technical documentation, you must plan your strategy for those Access Keys you need. There are separate Access Keys for the HTML and XML Tools. Additionally, UPS recommends each site implementation of your EC solution have separate Access Keys. An example would be a company that is implementing the Tools into three parts of their organization in three different cities. In this case, it is recommended that you obtain three separate Access Keys to uniquely identify each site.

If you have requested use of the Premium Tools, do not request an Access Key until after you received confirmation from UPS that your Premium Tool request has been approved.



For participants in the UPS OnLine Tools Third Party Developer Program or other advanced End-users that have a large number of Access Keys to set up, UPS can provide an XML interface to the Get Access Key process.

#### **4. Build your EC solution.**

Imbed your UserID, Password and Access Key into your Tools enabled EC solution. An XML Access Request Message containing your UserID, Password and Access Key (Access License Number) must be submitted with every XML Service Request message.

#### **5. Test your EC Tool implementation.**

UPS provides customers with a Customer Integration Environment that allows customers to complete their integration testing with UPS' servers. This environment is not intended for stress testing. Customers should complete all testing with their application connected to the Customer Integration Environment URL for the tool they are integrating. Once testing and certification (if necessary) is completed, customers should point their applications to the production URL.

To ensure that your Tool's enabled EC solution works properly we provide sample code, DTD's and example XML documents. These can be found in the "How To" files for each Tool.

For the Premium XML Tools (e.g., Shipping and Signature Tracking), additional interactions and approvals with UPS are required before you go into production. Details of what to do and who to contact are contained in the documentation of each premium Tool.

#### **6. Go into production with your Tools enabled for implementation.**



## Rates and Service Selection

### Architecture Configuration

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Your applications communicate via the Internet with the UPS OnLine Tools server that implements all functionality.

### Communication

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An e-commerce application invokes UPS OnLine Tools by initiating Hypertext Transfer Protocol (HTTP) communication with the server hosting UPS OnLine Tools. HTTP is an application-level protocol for distributed, collaborative, and hypermedia information systems. HTTP is also a generic protocol used to communicate from user agents and proxies/gateways to other Internet systems, including those supported by SMTP, NNTP, FTP, Gopher, and WAIS. HTTP allows a user to readily exchange XML-formatted messages.

UPS OnLine Tools use secure HTTP (HTTPS) for your protection and for the protection of UPS. The secure transmission ensures that the sender and receiver are the only parties able to decode a transmission. Encrypting the HTTP protocol through a Secure Socket Layer (SSL) socket performs HTTPS. Third-party sockets are available from a number of vendors.

All interactions with the UPS OnLine Tools server are through the HTTP POST method. The HTTP message content is formatted as an XML document.

UPS OnLine Tools supports the HTTP 1.1 protocol (refer to HTTP specifications at <http://www.w3.org/Protocols/rfc1945/rfc1945>).

### XML

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Extensible Markup Language (XML) is an open standard for defining markup languages to represent structured information over the web. XML documents are used for business-to-business communication and data interchange between dissimilar systems. Network transfer occurs with standard HTTP over TCP/IP.

UPS OnLine Tools uses XML documents to communicate with your applications. XML, like its cousin HTML, is a subset of Standard Generalized Markup Language (SGML). Whereas HTML is used to tag words, pictures, and other media so that they can be rendered the same way by different browsers, XML is used to tag documents and data so that different software consumers can interpret them without ambiguity.

For example, consider the following text:

```
1Z0597X90219590035
```

This string can be interpreted in many ways—an invoice number, a purchase order number, or random sequence of characters (noise). Using XML to tag the string removes the ambiguity:

```
<TrackingNumber>1Z0597X90219590035</TrackingNumber>
```

The tagging mechanism of XML guarantees that if documents are structured properly, the data can always be parsed.



UPS OnLine Tools supports XML 1.0 specification (<http://www.w3.org/TR/1998/REC-xml-19980210.html>)

## XML Package Carrier Interface

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XML Package Carrier Interface (XPCI) defines a vocabulary and structure for describing packages, shipments, and the activity details for package carriers and their customers. XPCI is a set of DTDs that defines the terminology, transaction enveloping, and XML message definitions. For a client to be XPCI-compliant, the client must generate a well-formed XML message that validates against the XPCI DTDs.

Several DTDs, organized into three categories, define XPCI:

- **Vocabulary**—This DTD defines the basic business vocabulary of XPCI. All tags used in a message are defined in this DTD.
- **Interchange**—This DTD defines the transaction-enveloping scheme. Every message includes transaction information.
- **Message**—Each message has an associated DTD that defines the vocabulary of the message.

## DTDs

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A Document Type Definition (DTD) is a set of rules that specifies how to use XML markup. It contains specs for each element, including what the element's attributes are, what values the attributes can take on, and what elements can be contained in others. Trading partners uses DTDs as interface contracts (for example, input/output specifications that programmers use to craft software). DTDs are also used by software to validate the syntax of XML documents. DTDs are available on your country's UPS E-Business web site.



UPS ONLINE TOOLS

# General Programming Information



## General Programming Information

### Integration Requirements

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To integrate UPS OnLine Tools into your e-commerce applications, you must develop custom code that adapts your application's business logic and data to UPS OnLine Tools. You can use any programming language that supports HTTP communication across Internet socket and secure connections, such as Java, Visual Basic, or C++.

1. You will need to know how to program URL or socket connections. There are several ways you can do this. Which method you choose will depend on your application platform and programming language. For example, if you program in Java on any platform, you could use the URLConnection Class, which is part of the Java Development Kit. Alternatively, Microsoft supplies several components for use with Visual Basic and ASP (VBScript).
2. You will need to obtain, or write, a secure socket implementation that supports the SSL standard for secure communications. UPS OnLine Tools requires secure HTTP (HTTPS). This data security is required for the protection of both the client application and UPS; sensitive (billing-related) data is being transferred back and forth across the public Internet.
3. You will need to know how to encode and decode XML documents. To program XML documents, you'll probably want to use an XML parser, which provides an Application Programming Interface (API) for manipulating XML documents. There are several XML parsers available as freeware, as well as commercial software products. (See Bibliography for more information.)
4. You will need to design a strategy into your software for handling errors. Consider that there are three types of errors: hard errors, transient errors, and warnings. For a smoothly running application you must decide how you handle each type of error. In some cases it may be appropriate to display the error to the user. On the other hand, if there is no GUI in your application, your software must decide what to do. For instance, if you are designing a GUI interface, you must decide whether to show transient errors or simply retry the request behind the scenes. In all cases, we will supply an error number and a natural language error message.
5. You will need to establish a connection to the Internet from the computer that runs your e-commerce application. You also need to establish Internet access with your own Internet Service Provider.

### Planning the OnLine Tools Integration

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A successful implementation of the UPS OnLine Tools depends on many factors. It is important that you have the appropriate tools to work with the platform you are integrating with, the appropriate skill set (XML knowledge and/or experience) as well as a project plan and design. The following checklist should aid in the process:

1. Obtain UserID, Password and Developer's Key from your country's UPS E-Business web site. (See the "Security Elements" section in the Product Overview chapter.)
2. Obtain documentation and the corresponding "How To" file for the tool you wish to implement.
3. Carefully review the documentation.
4. Obtain parser and utility software for SSL. For tools returning graphic images (Signature Tracking and Shipping), obtain software for Base64 Encoding.
5. Determine how your application will connect to the Internet. This may involve discussions with your network administrator and/or network security staff.
6. Develop a plan for error handling.



## Rates and Service Selection

7. Develop your application.
8. Obtain Access Key. (See “Security Elements” in the Product Overview section.)
9. Perform integration testing in the UPS Customer Integration Environment.
10. For Signature Tracking and Shipping, follow the product certification process identified in the Customer Integration Environment section.
11. Launch your application.

## Communication

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An application invokes UPS OnLine Tools by initiating HTTP communication with the server hosting UPS OnLine Tools. All interactions with the host server are through the HTTP POST method. The HTTP message content sent is formatted as an XML document.

Applications connected to the Internet can connect directly to UPS OnLine Tools at the HTTPS port 443, by opening either a secure TCP/IP socket or secure URL connection. Applications send request data to UPS OnLine Tools by writing data to the TCP/IP socket or URL connection. The request data must be formatted as a valid XML request message and adhere to the HTTP protocol. Applications receive the response data from UPS OnLine Tools by reading data from the same TCP/IP socket or URL connection.

HTTPS is accomplished by using the HTTP protocol using a secure (SSL) socket. You must obtain an SSL package that supports the RSA encryption algorithm in order to communicate with the UPS OnLine Tools server.

## Invoking UPS OnLine Tools via XML

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An application creates an XML document containing the content required by the interface to be invoked. The application also provides the access tokens needed for the interface to be invoked. The application must know which URL to use to access the desired interface.

Upon establishing connection with the URL, the application sends the HTTP message to the URL using the POST method. The request HTTP message consists of a header section and a content section. The header section specifies the HTTP method (POST), the content type (application/x-www-form-urlencoded), the content length, and so on, as per the HTTP 1.1 specification. The content of the HTTP message is the XML document containing the data needed for the interface to be invoked. The application waits for a response.

The interface receives the HTTP content, and attempts to parse the received XML document and perform the requested action.

The interface generates new XML content to be returned to the application. The content type is set to application/x-www-form-urlencoded. The response is returned to the HTTP server, which sends it to the application.

The application, upon receiving the response, extracts the content according to the content type, and evaluates the response to determine if the desired service was rendered.



## Base64 Encoding

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*Note: Base64 Encoding is only required for Signature Tracking and Shipping.*

Base64 encoding is used to preserve binary data. The UPS OnLine Tools server uses Base64 encoding to preserve images. Listed below are links to help you better understand Base64 encoding.

- This details Sun's interface in one of its packages that codes and decodes Base64  
[http://java.sun.com/products/commerce/release\\_10ea1/api/Package-javax.commerce.util.html](http://java.sun.com/products/commerce/release_10ea1/api/Package-javax.commerce.util.html)
- This link contains a detailed discussion of the RFC and its implications  
<http://www.freesoft.org/CIE/RFC/1521/7.htm>
- These sites offer classes, which code and decode Base64. We have not tested, much less investigated these, and suggest you do your own search and due diligence investigations.  
<http://www.fourmilab.ch/webtools/base64/>  
<http://www.davecentral.com/7202.html>

## Secure Socket Layer (SSL)

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SSL technology is used to protect sensitive data while traveling over public domains. UPS requires you to use SSL for all transactions. The following sites contain more information on SSL. They are listed for your convenience. UPS does not endorse these sites or products in any way.

- These Sun sites contain a good guide to SSL issues, one for JDK 1.1, the other for JDK 1.2:  
<http://java.sun.com/products/jdk/1.2/docs/guide/rmi/SSLInfo.html>  
[http://java.sun.com/security/ssl/API\\_users\\_guide.html](http://java.sun.com/security/ssl/API_users_guide.html)  
<http://www.phaos.com/solutions.html>
- This site is the home for a free SSL implementation written in Java. These are listed for your convenience.  
<http://speedy.rtfm.com/puretls/>
- These sites offer licensed SSL implementations for Java.  
[http://www.certicom.com/products/sslplus\\_java.html](http://www.certicom.com/products/sslplus_java.html)  
<http://www.alphaworks.ibm.com>

UPS OnLine Tools support the following browsers:

- Netscape Navigator 3.0 and later
- Microsoft Internet Explorer 3.02 and later
- America Online 3.0 and later



## Rates and Service Selection

### Certificates

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The OnLine Tools currently use certificates from GTE CyberTrust and VeriSign. There are multiple ways one can add a certificate to be used by their application dependent upon the environment, programming language, and type of application. To obtain the proper certificate, place the XML Tool's URL in a browser ([https://wwwcie.ups.com/ups.app/xml/\[ToolName\]](https://wwwcie.ups.com/ups.app/xml/[ToolName]) for CIE and [https://www.ups.com/ups.app/xml/\[ToolName\]](https://www.ups.com/ups.app/xml/[ToolName]) for production), connect to the URL, and double-click on the "lock" on the bottom right of the window (using Internet Explorer). After that the steps can be followed to obtain and install the certificate.

### XPCI

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XML Package Carrier Interface (XPCI) defines a vocabulary and structure for describing packages, shipments, and the activity details for package carriers and their customers. XPCI is a set of DTDs that defines the terminology, transaction enveloping, and XML message definitions. For a client to be XPCI-compliant, the client must generate a well-formed XML message that validates against the XPCI DTDs.

UPS OnLine Tools demand as a pre-condition that all messages be XPCI-compliant. This means that each message must validate against its corresponding DTD, however, the XML message itself should not contain a DOCTYPE. UPS OnLine Tools do not use the XML DOCTYPE reference.

### Access Request

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An XML Access Request message containing your UserID, Password and Access Key must be concatenated in front of every XML Service Request message. Refer to the XML Request code samples in the Programming Information chapter for examples of submitting the Access Request message.

### Connecting and Messaging

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To invoke UPS OnLine Tools:

1. Open a secure TCP/IP socket or secure URL connection using the connection address for the interface to be invoked.
2. Create an XML Service Request message. All messages must be XPCI-compliant.
3. Send an XML Access Request message concatenated in front of the Service Request message to the tool. To send a request message to a tool, an application writes a stream of data to the tool via a secure TCP/IP socket or secure URL connection. The data stream must be in the form of an HTTP POST request message.
4. Receive the XML response message from the tool. To read a response from a tool, an application reads the response in XML format via a secure TCP/IP socket or secure URL connection.
5. Parse the XML response message to retrieve data.
6. Identify and handle error conditions.



## Transaction Framework

The XPCI defines a common element found on all transactions. This container node, labeled **TransactionReference**, contains the transaction specific information **CustomerContext** and **XPCI Version**.

**XpciVersion** controls a transaction language's version separately from the vocabulary of business terms. **XpciVersion** identifies the version of the transaction language. The implied version is the most recent version. The tag **XpciVersion** identifies the version of the business vocabulary.

The client uses **CustomerContext** to synchronize request/response pairs. The client establishes **CustomerContext**, which can contain any information you want, as long as it is valid XML; it is echoed back to the server.

The success or failure of a transaction is detailed in **ResponseStatusCode** and **ResponseStatusDescription**. The UPS XPCI server only supports synchronous interchanges at this time. XPCI compliant transactions always contain a request and a response.

## Interchange Interface Specification

Each UPS OnLine Tools interchange contains common elements. These elements are used to frame each request, response, and error.

The UPS OnLine Tools interchange operates within an HTTP 1.1 framework. An XML request is sent to an interface via the HTTP POST method. An XML response is returned. The interchange is synchronous (that is, the UPS OnLine Tools client thread waits for the UPS OnLine Tools server to respond).

The following XPCI tables represent the interchange interface elements involved in the UPS OnLine Tools transactions.

Table 1: XPCI Interchange INPUT Element Definitions

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
Request/ TransactionReference	No One	Container		Transaction Reference container tag.
Request/ TransactionReference/ CustomerContext	No Zero or One	ANY	0..512	The client may use the <b>CustomerContext</b> to synchronize request/response pairs. The client establishes <b>CustomerContext</b> , which can contain any information you want, as long as it is valid XML. It is echoed back by the server response XML.



## Rates and Service Selection

Table 1: XPCI Interchange INPUT Element Definitions

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
Request/ TransactionReference/ XpciVersion	No One	Alpha- numeric	6	Identifies the version of the message. The current XpciVersion is 1.0001.
Request/ RequestAction	Yes One	Alphanumeric	1..15	Identifies the function to be invoked. Rates and Service Selection = "Rate".
Request/ RequestOption	No One	Alphanumeric	1..15	Identifies the optional processing to be performed.



On a successful exchange with the Tools, only the first four elements below will be returned as output. If an error occurs, additional fields will be populated.

Table 2: XPCI Interchange OUTPUT Element Definitions

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
Response/ TransactionReference	Yes Zero or One	Container		Container for customer provided data and the XPCI Version.
Response/ TransactionReference/ CustomerContext	No Zero or One	Any	0..512	The client may use the CustomerContext to synchronize request/response pairs. The client establishes CustomerContext, which can contain any information you want, as long as it is valid XML. It is echoed back by the server response XML.
Response/ TransactionReference/ XpciVersion	Yes Zero or One	Alpha-numeric	6	Identifies the version of the message. The current XpciVersion is 1.0001.
Response/ ResponseStatusCode	Yes One	Numeric	1	Identifies the success or failure of the transaction. 1 = Successful 0 = Failed
Response/ ResponseStatusDescription	Yes Zero or One	Alpha-numeric	7	Describes Response Status Code. Returns text of "Success" or "Failure".
Response/Error	Cond Zero to Many	Container		If an error is encountered during the interchange, the Response contains an error. If the error is present, then the ErrorSeverity and ErrorCode are required.



## Rates and Service Selection

Table 2: XPCI Interchange OUTPUT Element Definitions

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
Response/Error/ ErrorSeverity	*Yes One	Alpha- numeric	1..15	Describes the severity of the error. TransientError - Customer's data has not been processed due to system unavailability. The customer has to wait and try again. HardError - The error was encountered processing the customer's data and that the data needs correction. Warning - The customer's data was successfully processed; however, there were warnings encountered during processing.
Response/Error/ ErrorCode	*Yes One	Numeric	1..15	A numeric value that describes the error. Each tool defines a range of error codes. Refer to Error Conditions table in the 'Programming Information' chapter for detailed descriptions of all errors.
Response/Error/ ErrorDescription	No Zero or One	Alpha- numeric	1..50	Describes the error code.
Response/Error/ MinimumRetrySeconds	No Zero or One	Numeric	1..5	Number of seconds to wait until retry. This field is populated on special conditions of the Transient Error only, as defined by the service. A number between 1 and 86400 (24 hours)
Response/Error/ ErrorLocation	No Zero to Many	Container		Identifies the element in error.
Response/Error/ ErrorLocation/ ErrorLocationElementName	No Zero Or One	Alpha- numeric	1..512	The XPATH name of the element in error. This is a valid XPATH pointing to an element in the request document.



Table 2: XPCI Interchange OUTPUT Element Definitions

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
Response/Error/ ErrorLocation/ ErrorLocationAttributeName	No Zero or One	Alpha- numeric	1..50	The name of the attribute in error. This is the name of the attribute contained by the Error Location Element.
Response/Error/ ErrorLocation/ ErrorDigest	No Zero to Many	Alpha- numeric	Bound by the size of the Request data.	The contents of the element in error.

## Data Type Codes

UPS OnLine Tools supports the XML 1.0 specification, as recommended by the World Wide Web consortium (<http://www.w3.org/TR/REC-xml>). All message data must conform to this specification.

All message data is text (a sequence of characters), which may represent markup or character data. A character is an atomic unit of text, as specified by ISO/IEC 10646\*. Legal characters are tab, carriage return, line feed, and the legal graphic characters of Unicode and ISO/IEC 10646. The use of compatibility characters, as defined in The Unicode Standard, Version 2.02<sup>†</sup>, is discouraged.

### Supported Character Set

UPS OnLine Tools supports the UTF-8 and ISO-8859-1 character sets.

### Dates, Times, and Numbers

Reducing all data to character data simplifies many aspects of message parsing and transport. However, this also creates problems when more complex data is needed, since all data is text, dates, times, and numbers require agreement, with regard to their representation. UPS OnLine Tools use the following representation of dates, times and numbers.

Table 3: Representation of Dates, Times, and Numbers

Data Type	Description
Date	Two date formats are supported: YYYY-MM-DD and YYYYMMDD
Time	Two time formats are supported: HHMMSS and HH:MM:SS, where HH is the hour field and uses a 24-hour clock (military time). All time is based on LOCAL time zone.

\* ISO (International Organization for Standardization). ISO/IEC 10646-1993 (E). Information technology -- Universal Multiple-Octet Coded Character Set (UCS) -- Part 1: Architecture and Basic Multilingual Plane. [Geneva]: International Organization for Standardization, 1993 (plus amendments AM 1 through AM 7).

† The Unicode Consortium. The Unicode Standard, Version 2.0. Reading, Mass.: Addison-Wesley Developers Press, 1996.



## Rates and Service Selection

Table 3: Representation of Dates, Times, and Numbers

Number	Decimal numbers are represented with 2 decimal positions. Integers are represented without any decimal points.
Telephone Number	Only digits 0-9 are allowed. Length must be between 10 and 14 digits.

## HTTP Request and Response

The following text and examples illustrate HTTP requests and responses. The examples illustrate the HTTP POST command and all necessary headers. The response shows the response headers and response data. The bold LF in the XML is added for formatting and does not exist in the actual data.

### XML Request Messages over HTTP

Every HTTP request consists of four parts:

- request line
- header fields
- empty line
- message body

### Sending Requests

To send a request to a tool, an application writes a stream of data to the tool via a TCP/IP socket or URL connection. The data stream must be in the form of an HTTP request message. An application can create a formatted request message in a buffer, and then write the contents of the buffer to the tool. The exact syntax used to write the buffer to the tool varies, depending on the programming language and the communication API being used.

### Request Line

The request line comprises the following three elements:

- Method
- Request-URL
- HTTP-version, and ending with carriage-return-line-feed (CRLF) string

Table 4: Request Line Elements

Element	Description
Method	Indicates the method for sending data to the resource identified by the Request-URL. Method is case-sensitive. Though other values are possible, the UPS OnLine Tools require this be set to POST.
Request-URL	The location of the tool to which the message data should be sent.
HTTP-version	The HTTP version of the message.



### Header Fields

Header fields provide general information about a request. To understand what kind of data is being received, every request containing a message body should include a Content-Type header. The Content-Type header field indicates the media type (text, HTML, image, etc.) of the message body sent to the recipient. For the POST method, HTTP requires that the Content-Length header be supplied. The Content-Length provided in the header is the length, in bytes, of the message body.

### Empty Line

After the necessary headers are added to the request, an empty line must be added to indicate the end of the header fields and the start of the message body, if there is one.

### Message Body

The message body contains the information to be processed by a tool. The message must be XPCI-compliant.

### HTTP Request Example

```
Request:  POST /toolname/1.1
Content-Type:  application/x-www-form-urlencoded
Content-Length:  273
<?xml version="1.0" encoding="UTF-8"?>LF...
```

Within the request line, each element is separated by a blank space (SP). No CRs or LFs are allowed, except in the final CRLF sequence. The structure of the request line is shown below, followed by an example.

```
Request Line = Method SP Request-URL SP HTTP-version CRLF
Example: POST /toolname HTTP/1.1
```

### XML Response Messages over HTTP

Every response consists of four parts: status line, header fields, empty line, and message body.

### Reading Responses

To read a response from a tool, an application reads the response in XML format via a TCP/IP socket or URL connection. The application parses the data out of the response data stream. The exact syntax of the response complies with the XPCI specification.

### Status Line

The status line comprises three elements:

- HTTP-version
- Status-Code
- Reason-Phrase, and ending with carriage return-line feed (CRLF) string

Table 5: Status Line Elements

Element	Description
HTTP-version	The HTTP version of the message.



## Rates and Service Selection

Table 5: Status Line Elements

<b>Status-Code</b>	<b>A 3-digit integer result code of the attempt to understand and satisfy the request.</b>
<b>Reason-Phrase</b>	<b>A short textual description of Status-Code.</b>

### HTTP Response Example

```
HTTP/1.1 200 OK
Server: Netscape-Enterprise/3.6
Date: Fri, 06 Aug 1999 LF
21:04:44 GMT
Content-type: application/x-www-form-urlencoded
<?xml version="1.0" encoding="UTF-8"?>LF
```

**Within the status line, each element is separated by blank spaces (SP). No CRs or LFs are allowed, except in the final CRLF sequence. The structure of the status line is shown below, followed by an example.**

Status Line = HTTP-version SP Status-Code SP Reason-Phrase CRLF

**Example:** HTTP/1.1 200 OK



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UPS ONLINE TOOLS

# Rates & Service Selection Programming Information



## Rates & Service Selection

### UPS Rates & Service Selection

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#### Introduction

If your customers want flexibility and control when shipping their online purchases, your ecommerce site needs UPS Rates & Service Selection. This powerful UPS OnLine® Tool lets online shoppers compare, price and select shipping services that best fit their needs and budgets. For example, your customers can choose express services, like UPS Next Day Air, when they need their packages right away and standard services, like UPS Ground, when they have more time for delivery.

The UPS Rates & Service Selection Tool is available in a basic HTML version as well as a more advanced, XML version. The HTML tool lets you simply copy HTML code into your Web page to gain the functionality and look of UPS Rates & Service Selection. The XML tool gives you greater flexibility by allowing you to format the rates and services data to suit your Web site or application's design and layout.

For single packages, shipped from 36 origin countries to destinations around the world, the UPS Rates & Service Selection Tool identifies all the available UPS domestic and international services and displays shipping rates based on a package's specifications. It can be used to dynamically generate a list of shipping services tailored for your customers' shipments. You can also use the UPS Rates & Service Selection Tool to create easy-to-understand menus from which your online customers can select a shipping method.

With UPS Rates & Service Selection, You Can:

- Generate specific shipping charges for each of your customer's orders, including any shipping option they may choose.
- Create attractive pull-down menus your online customers can use to make their shipping choices.

Your Customers Can:

- Find accurate service and rate information from UPS right on your Web site.
- Compare total shipping and handling charges for different UPS service levels.
- Save money by choosing the right shipping option every time.
- Learn how much shipping will cost.

For more information on UPS OnLine Tools, including UPS Rates & Service Selection, please visit your country's UPS E-Business web site.

#### Tool Overview

The Rates & Service Selection validates and rates shipments from 36 origin countries to destinations around the world. Based on the shipment's input characteristics (origin, destination, shipment weight), the tool provides the customer with a list of all applicable UPS services and their respective published rates.



## Rates and Service Selection

Along with the suite of UPS services, the UPS Rates & Service Selection Tool also supports the following customer-requested accessorials:

- Declared Value
- Saturday Pickup
- Saturday Delivery
- Additional Handling

The tool operates in two different modes. The Rate Shopping mode provides users with a list of all services applicable to their shipment. In Rating mode, the tool provides a rate for the service specified by the customer.

### Negotiated Rates

Negotiated Rates refer to the rate displayed on the client system that has been rated using the customer's contractual incentive plan. Negotiated Rates will not always include all post-manifest surcharges.

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.

The RSS tool will support Negotiated Rates for both Rate and Rate Shop Requests. (For more information on Rate and Rate Shop Requests refer sections, Rating a Specific Service and Rate Shopping)

### Multi-package Shipment Rating

The UPS Rates & Service Selection Tool is capable of rating shipments containing multiple packages.

For all shipments inside or between the U.S. and Puerto Rico:

The Input request must provide details at the package level. For shipments consisting of only one package, the tool will return the rate for that one package. If the shipment consists of two or more packages, the tool will return a separate rate for each package and the rate for the total shipment. The total shipment rate will be a sum of the rates for all packages.

For all shipments outside the U.S. and Puerto Rico:

The Input request must provide details at the shipment level in the shipment container. For shipments consisting of one or more packages, the tool will return one rate for all packages at the shipment level. Rating data returned at the package level should be ignored.

### Supported Origin Countries

Refer to the [Origin Country Information](#) table in this chapter for countries supported by this release of the UPS Rates & Service Selection Tool.



## Connection Addresses

**Rates & Service Selection request documents must be sent to the UPS OnLine Tools server for processing. Each request requires specific processing based on the request type; therefore, each tool has a unique URL for connection purposes.**

**The URL for connecting to the UPS Rates & Service Selection Tool is:**

**<https://www.ups.com/ups.app/xml/Rate>.**

**For integration testing, you should direct your test Rate and Service Selection software to:**

**<https://wwwcie.ups.com/ups.app/xml/Rate>.**

**Note: Due to the technology employed by UPS to most efficiently route customers' requests to the Tools servers in a timely fashion and to prevent issues which could arise from future upgrades by UPS it is necessary to allow the URL for the OnLine Tools to resolve to the appropriate IP addresses for the Tools. Due to these reasons please do not hard code any IP addresses for the Tools.**

**Please review the Customer Integration Environment section for testing, certification, and moving to production.**



## Rates and Service Selection

### Rates & Service Selection Guidelines

#### Rating a Specific Service

**In order to rate a specific service, the Rates & Service Selection tool should be set in rating mode by specifying “rate” in the Request/RequestOption field.**

**On receipt of a shipment with the UPS services already specified, the tool will validate the shipment and then determine the rate for that service only.**

#### Rate Shopping

**To produce a list of all available services for a given shipment, the UPS Rates & Services Selection Tool should be set to rate shopping mode by specifying “shop” in the Request/RequestOption field.**

**On receipt of the shipment, the tool performs a validation to ensure it complies with UPS business rules. Following validation, the tool identifies and rates all available services. Lastly, the tool responds to the calling application with a list of services, their associated rate and guaranteed delivery time, if available.**

#### Displaying the UPS Rate Information Notice

**If you or any other party charges, displays or advertises rates which are different from the UPS published rates returned by the UPS OnLine Tools, then the following language, or such other language provided by UPS from time to time, must be conspicuously displayed in reasonable proximity to such rates:**

**"These fees do not necessarily represent UPS published rates and may include handling charges levied by [Company]."**

#### 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.**

#### Table Notes

**The following input and output tables are for reference only and may include data elements that are contained in the DTD, but are not relevant for the use of this tool. Elements that are “Not Relevant For This Tool” or are “Not Populated for This Release” are shaded in gray. Elements that are required or are optional for this tool are not shaded. Please note that the XPCI DTD documents for this tool contain some data elements that are not referenced in these tables and are not relevant for this tool at this time.**



#### Description/Value Definitions

- **Can Be Used**—the data element is optional and can be used in accordance with the terms specified in the Validation Rules.
- **Defaults To**—identifies the default values for data elements that are not populated.
- **Format**—identifies specific formats that will be recognized for a specific data element.
- **Not Populated for This Release**—the referenced data element is not used for this release of this Tool, but may be used in a future release. The data element will not be processed and no error will be returned.
- **Not Relevant for the Tool**—the referenced data element is not pertinent to this tool. However, if passed, the data element will not be processed and an error message will not be returned.
- **Required For**— the referenced data element will be processed if the conditions identified are met. If the conditions are not met, the element may be ignored or an error returned (if stated rules are violated).
- **Valid Values**—identifies the specific values or parameters that will be recognized for the referenced data element



## Rates and Service Selection

### Rates & Service Selection Request Input

The following table describes and defines data elements necessary for selecting and understanding rate-shopping services. The required data elements are identified by the word “Yes” in the **Required** column. Data elements that are identified by “Cond” in the **Required** column and may be required in association with another data element or given specific business rules. The term, **Cardinality**, defines the number of occurrences that an element or container can have in the Request or Response XML document. Refer to the General Programming Information chapter for a description of the TransactionReference XML elements.

**Note:** The “Required” column contains “\*Yes” for instances when the element is only required if its optional/conditional parent container is present.

Table 1: Rates & Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest	Yes One	Container		Container tag for the root of Rates & Service Selection request.
RatingServiceSelectionRequest/Request	Yes One	Container		Container tag for Rates & Service Selection request.
RatingServiceSelectionRequest/Request/RequestAction	Yes One	Char	15	The action to be taken by the UPS Rates & Service Selection Tool. Must contain “Rate” to execute rating and service selection.



Table 1: Rates &amp; Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/Request/RequestOption	No Zero	Char	15	Optional processing. The server switches between rating and shopping using the RequestOption tag. If the request does not provide an option, the server defaults to rate behavior. <b>rate</b> = The server rates the specific service type provided and validates the shipment. This is the default behavior if an option is not provided. <b>shop</b> = The server validates the shipment, and return rates for all UPS services from the ShipFrom to the ShipTo addresses. If a ShipFrom address is not present, it is assumed that the shipment is shipped from the shipper's address.
RatingServiceSelectionRequest/PickupType	No Zero or One	Container		Pickup Type container tag
RatingServiceSelectionRequest/PickupType/Code	*Yes One	#PCDATA	2	Pickup Type Code. Default value is 01. Valid values are: 01- Daily Pickup 03- Customer Counter 06- One Time Pickup 07- On Call Air 11- Suggested Retail Rates 19- Letter Center 20- Air Service Center Refer to Table 6 Rate Chart Usage table in Appendix C for rate type based on Pickup Type and Customer Classification Code.
RatingServiceSelectionRequest/CustomerClassification	No Zero or One	Container		Customer Classification container. Valid if ship from country is "US".



## Rates and Service Selection

Table 1: Rates & Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/ CustomerClassification/Code	*Yes One	#PCDATA	2	<p>Valid values are:</p> <p><b>01 - Wholesale</b></p> <p><b>03 - Occasional</b></p> <p><b>04 - Retail</b></p> <p>Refer to the Table 6 Rate Chart Usage table in Appendix C for rate chart based on Pickup Type and Customer Classification Code.</p> <p>The default value is "01" (wholesale) when the Pickup Type code is "01" (daily pickup).</p> <p>The default value is "03" (occasional) when the Pickup Type code is:</p> <p><b>06 - One Time Pickup</b></p> <p><b>07 - On Call Air</b></p> <p><b>19 - Letter Center</b></p> <p><b>20 - Air Service Center</b></p> <p>The default value is "04" (Retail) when the Pickup Type Code is:</p> <p><b>03 - Customer Counter</b></p>
RatingServiceSelectionRequest/ Shipment	Yes One	Container		Container tag for Shipment.
RatingServiceSelectionRequest/ Shipment/Shipper	Yes One	Container		Container tag for Shipper.



Table 1: Rates &amp; Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest / Shipment/ Shipper/ ShipperNumber	Cond Zero or One	#PCDATA	6	The shipper's UPS account number. When the Shipper account is a daily pickup account or an occasional account in US, the shipment will be evaluated for Hundredweight rating.  A shipper number is required when requesting to receive the negotiated rates. The shipper number is optional when requesting to receive the published rates.
RatingServiceSelectionRequest/ Shipment/Shipper/Address	Yes One	Container		Container tag for Shipper Address.
RatingServiceSelectionRequest/ Shipment/Shipper/Address/City	Cond Zero or One	Char	30	The shipper's city. Required if country does not utilize postal codes
RatingServiceSelectionRequest/ Shipment/Shipper/Address/ StateProvinceCode	Cond Zero or One	Char	2	The shipper's state code. Required if the ShipFrom container is absent.
RatingServiceSelectionRequest/ Shipment/Shipper/Address/ PostalCode	Cond One	Char	9	The shipper's postal code. Required if country utilizes postal codes (i.e. US & PR)
RatingServiceSelectionRequest/ Shipment/Shipper/Address/ CountryCode	Yes Zero or One	Char	2	The UPS billing code for the shipper's country. See Origin Country Information table. Default = US.
RatingServiceSelectionRequest/ Shipment/ShipTo	Yes One	Container		Container tag for receiver's information.
RatingServiceSelectionRequest/ Shipment/ShipTo/Address	Yes One	Container		Container tag for receiver's address.
RatingServiceSelectionRequest/ Shipment/ShipTo/Address/City	Cond Zero or One	Char	30	The receiver's city. Must be supplied if the receiver's country does not have a Postal Code.



## Rates and Service Selection

Table 1: Rates & Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/Shipment/ShipTo/Address/StateProvinceCode	No Zero or One	Char	2	The receiver's state code.
RatingServiceSelectionRequest/Shipment/ShipTo/Address/PostalCode	Cond One	Char	9	The receiver's postal code. Required if Ship To country code is US. Must supply either the receiver's city or postal code.
RatingServiceSelectionRequest/Shipment/ShipTo/Address/CountryCode	Yes Zero or One	Char	2	The UPS billing code representing the receiver's country. See Appendix C for UPS Country Code table. Default = US.
RatingServiceSelectionRequest/Shipment/ShipTo/Address/ResidentialAddressIndicator	No Zero or One	EMPTY	0	A flag indicating if the receiver's address is a residential location. True if tag exists; false otherwise
RatingServiceSelectionRequest/Shipment/ShipFrom	No One	Container		Container tag for sender's information. If not included, default to shipper.
RatingServiceSelectionRequest/Shipment/ShipFrom/Address	*Yes One	Container		Container tag for sender's address.
RatingServiceSelectionRequest/Shipment/ShipFrom/Address/City	Cond Zero or One	Char	30	The sender's city. Must be supplied if the sender's country does not have a Postal Code.
RatingServiceSelectionRequest/Shipment/ShipFrom/Address/StateProvinceCode	Cond One	Char	2	The sender's state code. Required if the ShipFrom container is present.
RatingServiceSelectionRequest/Shipment/ShipFrom/Address/PostalCode	Cond One	Char	9	The sender's postal code. Required if Ship To country code is US. Must supply either the sender's city or postal code.
RatingServiceSelectionRequest/Shipment/ShipFrom/Address/CountryCode	*Yes One	Char	2	The UPS billing code representing the sender's country. See Appendix C for UPS Country Code table. Default = US.



Table 1: Rates &amp; Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/ Shipment/ ShipmentWeight	No Zero or One	Container		Container tag for the shipment weight.
RatingServiceSelectionRequest/ Shipment/ ShipmentWeight/ UnitOfMeasurement	No Zero or One	Container		Container tag for the shipment weight unit of measurement.
RatingServiceSelectionRequest/ Shipment/ ShipmentWeight/ UnitOfMeasurement/ Code	No Zero or One	Char	3	The code representing the unit of measure associated with the shipment weight. Shipment weight unit of measurement code. Codes are: 'LBS' = Pounds, 'KGS' = Kilograms, '00' = Metric Unit of Measurements, '01' = English Unit of Measurements Defaults Unit of Measurement used in the shipper's country
RatingServiceSelectionRequest/ Shipment/ ShipmentWeight/ Weight	No Zero or One	Float	15.1	The weight of the shipment.
RatingServiceSelectionRequest/ Shipment/ Service	Cond Zero or One	Container		Container tag the UPS service associated with the shipment. This container is required if RequestOption is rate or is omitted. The tag is ignored and not required if RequestOption is shop.
RatingServiceSelectionRequest/ Shipment/ Service/ Code	*Yes One	Char	2	The code for the UPS service associated with the shipment. All valid UPS Service Codes are available in Appendix C.
RatingServiceSelectionRequest/ Shipment/ Package	Yes One to Many	Container		Container tag for package associated with the shipment. A maximum of 200 packages for Rate. A maximum of 50 packages for Shop
RatingServiceSelectionRequest/ Shipment/ Package/ PackagingType	Yes One	Container		Container tag for package type associated with package shipment.



## Rates and Service Selection

Table 1: Rates & Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/ Shipment/Package/ PackagingType/Code	Yes One	Char	2	The code for the UPS packaging type associated with the package. All valid UPS Packaging Types are available in Appendix C.
RatingServiceSelectionRequest/ Shipment/Package/Dimensions	No Zero or One	Container		Container tag for Dimensions.
RatingServiceSelectionRequest/ Shipment/Package/Dimensions/ UnitOfMeasurement	No Zero or One	Container		Container tag for the unit of measure associated with the package dimensions.
RatingServiceSelectionRequest/ Shipment/Package/Dimensions/ UnitOfMeasurement/Code	No Zero or One	Char	2	The code for the unit of measure associated with the package dimensions. IN = Inches (default)
RatingServiceSelectionRequest/ Shipment/Package/Dimensions/ Length	*Yes One	Float	3.2	The length of the package used to determine dimensional weight. Valid values are between 1 and 108.00.
RatingServiceSelectionRequest/ Shipment/Package/Dimensions/ Width	*Yes One	Float	3.2	The width of the package used to determine dimensional weight. Valid values are between 1 and 108.00.
RatingServiceSelectionRequest/ Shipment/Package/Dimensions/ Height	*Yes One	Float	3.2	The height of the package used to determine dimensional weight. Valid values are between 1 and 108.00.
RatingServiceSelectionRequest/ Shipment/Package/ DimensionalWeight	No Zero or One	Container		Container for the package weight.
RatingServiceSelectionRequest/ Shipment/Package/ DimensionalWeight/ UnitOfMeasurement	No Zero or One	Container		Container for the unit of measure associated with the package weight.



Table 1: Rates &amp; Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/ Shipment/Package/ DimensionalWeight/ UnitOfMeasurement/Code	No Zero or One	Char	3	The code representing the unit of measure associated with the package weight. LBS = Pounds (default) KGS = Kilograms
RatingServiceSelectionRequest/ Shipment/Package/ PackageWeight	Cond Zero or One	Container		Container for the package weight.
RatingServiceSelectionRequest/ Shipment/Package/ PackageWeight/ UnitOfMeasurement	No Zero or One	Container		Container for the unit of measure associated with the package weight.
RatingServiceSelectionRequest/ Shipment/Package/ PackageWeight/ UnitOfMeasurement/Code	No Zero or One	Char	3	The code representing the unit of measure associated with the package weight. LBS = Pounds (default) KGS = Kilograms
RatingServiceSelectionRequest/ Shipment/Package/ PackageWeight/Weight	*Yes One	Float	6.1	The value of the package weight. 0.0 if PackagingType = Letter Otherwise 0.1 - 150.0
RatingServiceSelectionRequest/ Shipment/Package/ OversizePackage	No Zero or One	Char	1	Code representing package size. "1" = OS1, Oversize 1 (package exceeds 84 inches and is equal to or less than 108 inches in length and girth combined and weighs less than 30 pounds) "2" = OS2, Oversize 2 (package exceeds 108 inches in length and girth combined and weighs less than 70 pounds) "3" = OS3, Oversize 3. (package exceeds 130 inches in length and is equal to or less than 165 in length and girth combined and weighs less than 90 pounds.



## Rates and Service Selection

Table 1: Rates & Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/COD	No	Container		COD container. Indicates COD is requested. package level COD is available for US/PR to US/PR, CA to CA, and CA to US. CA to US COD is not allowed for package Letter/ Envelope.
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/COD/ CODFundsCode	No Zero or One	Char	1	DeliveryConfirmation and COD cannot coexist on a single Package. Required if CODCode is "3". Valid values: "0" = check, cashier's check or money order - no cash allowed, All Funds Allowed "8" = cashier's check or money order, no cash allowed. Only valid values are '0' or '8'.
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/ COD/ CODCode	No Zero or One	Char	1	The code associated with the type of COD. value: "3" = Tagless COD
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/COD/ CODAmount/CurrencyCode	No Zero or One	Char	3	The IATA currency code associated with the COD amount for the package. Required if a value for the COD amount exists in the MonetaryValue tag. Must match one of the IATA currency codes listed in Appendix C.
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/ COD/ CODAmount/MonetaryValue	*Yes One	Char	8.2	The COD value for the package. Required if COD option is present. Valid values: 0.01 – 50000.00



Table 1: Rates &amp; Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/ DeliveryConfirmation	No Zero or One	Container		Only allowed for shipment with US origin/destination combination.
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/ DeliveryConfirmation/ DCISType	* Yes One	#PCDATA	1	Type of delivery confirmation Valid values are: 1- Delivery Confirmation- No Signature 2- Delivery Confirmation- Signature Required 3- Delivery Confirmation- Adult Signature Required
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/ InsuredValue/CurrencyCode	No Zero or One	Char	3	The IATA currency code associated with the declared value amount for the package. Required if a value for the package declared value amount exists in the MonetaryValue tag. Must match one of the IATA currency codes as listed in Appendix C.
RatingServiceSelectionRequest/ Shipment/Package/ PackageServiceOptions/ InsuredValue/MonetaryValue	* Yes One	Char	8.2	The monetary value for the declared value amount associated with the package. Max value of 50,000.00 USD.
RatingServiceSelectionRequest/ Shipment/Package/ AdditionalHandling	No Zero or One	Empty	0	A flag indicating if the packages requires additional handling. True if tag exists.
RatingServiceSelectionRequest/ Shipment/ ShipmentServiceOptions/ SaturdayPickupIndicator	No Zero or One	Empty	0	A flag indicating if the shipment requires a Saturday pickup. True if tag exists.
RatingServiceSelectionRequest/ Shipment/ ShipmentServiceOptions/ SaturdayDeliveryIndicator	No Zero or One	Empty	0	A flag indicating if a shipment must be delivered on a Saturday. True if tag exists.



## Rates and Service Selection

Table 1: Rates & Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest/ Shipment/ ShipmentServiceOptions/ OnCallAir	No Zero or One	Container		This element is optional. If not provided the default values for scheduled Pickup Day will be the current day.
RatingServiceSelectionRequest/ Shipment/ ShipmentServiceOptions/ OnCallAir/Schedule	No Zero or One	Container		Container may be used to further clarify the customer's ground pickup details. This element is optional. If not provided, the default values for scheduled Pickup Day will be the current day.
RatingServiceSelectionRequest/ Shipment/ ShipmentServiceOptions/ OnCallAir/Schedule/PickupDay	No Zero or One	#PCDATA	2	Date the user wishes UPS to pickup the package Valid Values: 01 = Same Day 02 = Future Day Default Value = 01
RatingServiceSelectionRequest/ Shipment/ ShipmentServiceOptions/ OnCallAir/Schedule/Method	No Zero or One	#PCDATA	2	Method by which the user schedules the pickup. Valid Values: 01 = Internet 02 = Phone Default Value = 01
RatingServiceSelectionRequest / Shipment/ ShipmentServiceOptions/COD	No Zero or One	#PCDATA	1	COD container
RatingServiceSelectionRequest / Shipment/ ShipmentServiceOptions/COD/ CODCode	Yes One	Date	1	COD type value. '3' = Tagless COD.
RatingServiceSelectionRequest / Shipment/ ShipmentServiceOptions/COD/ CODFundsCode	No Zero or One	#PCDATA		Values are: '1' = cash '9' = check, cashier's check or money order - no cash allowed,
RatingServiceSelectionRequest / Shipment/ ShipmentServiceOptions/COD/ CODAmount/CurrencyCode	No Zero or One	#PCDATA	3	COD amount currency code type. Defaults to the currency used in the destination country.



Table 1: Rates &amp; Service Selection Request Input

Element (Xpath)	Required / Cardinality	Type	Length	Description / Values
RatingServiceSelectionRequest / Shipment / ShipmentServiceOptions / COD / CODAmount / MonetaryValue	Yes One	#PCDATA	1..8	COD Amount.
RatingServiceSelectionRequest / Shipment / HandlingCharge / FlatRate / CurrencyCode	No Zero or One	#PCDATA	3	The IATA currency code associated with the handling charge.
RatingServiceSelectionRequest / Shipment / HandlingCharge / FlatRate / MonetaryValue	No Zero or One	#PCDATA	16.2	The handling charge amount as determined by the shipper.
RatingServiceSelectionRequest / Shipment / HandlingCharge / Percentage	No Zero or One	#PCDATA	3	The handling charge as a percentage of the total shipment cost as determined by the shipper.
RatingServiceSelectionRequest / Shipment / RateInformation	No	Container	0	Rate Information
RatingServiceSelectionRequest / Shipment / RateInformation / NegotiatedRatesIndicator	* Yes Zero or One	#PCDATA	0	Negotiated Rates option indicator. If the indicator is present and the Shipper is qualified, the Rates tool will return Negotiated Rates in the response.



## Rates and Service Selection

### Rates & Service Selection Response Output

The following table defines the elements returned by the UPS Rates & Service Selection Tool. The *RatedShipment* container is repeated for each shipment. It is possible to receive multiple shipments from the “shop” request option. The required data elements are identified by the word “Yes” in the **Required** column. The optional data elements are identified by the word “Cond” in the **Required** column and may be required in association with another data element. The term, **Cardinality**, defines the number of occurrences that an element or container can have in the Request or Response XML document. Refer to the **General Programming Information** chapter for a description of the **TransactionReference** and **Error XML** elements.

Note: The “Required” column contains “\*Yes” for instances when the element is only required if its container is present.

Table 2: Rates & Service Selection Response Output

Element (Xpath)	Required / Cardinality	Type	Length	Description
RatingServiceSelectionResponse	Yes One	Container		Container tag for the root of Rating Service Selection response.
RatingServiceSelectionResponse/Response	Yes One	Container		Container tag for response.
RatingServiceSelectionResponse/Response/ResponseStatusCode	Yes One	Numeric	1	Identifies the success or failure of the transaction. 1 = Successful 0 = Failed
RatingServiceSelectionResponse/Response/ResponseStatusDescription	No Zero or One	Alpha-numeric	7	Describes Response Status Code. Returns text of “Success” or “Failure”.
RatingServiceSelectionResponse/RatedShipment	Yes One to Many	Container		Container tag for shipment.
RatingServiceSelectionResponse/RatedShipment/Service	Yes One	Container		Container tag for shipment service.
RatingServiceSelectionResponse/RatedShipment/Service/Code	Yes One	Char	2	The shipment’s UPS service code.
RatingServiceSelectionResponse / RatedShipment/ RatedShipmentWarning	No Zero or One	Char	150	Addition of a new warning message. Hundredweight (CWT) rate has automatically been applied to this shipment.
RatingServiceSelectionResponse/ RatedShipment/ BillingWeight	Yes One	Container		Container tag for shipment’s billing weight.



Table 2: Rates &amp; Service Selection Response Output

Element (Xpath)	Required / Cardinality	Type	Length	Description
RatingServiceSelectionResponse/ RatedShipment/BillingWeight/ UnitOfMeasurement	No Zero or One	Container		Container tag for the unit of measure of the shipment's billing weight.
RatingServiceSelectionResponse/ RatedShipment/BillingWeight/ UnitOfMeasurement/Code	No Zero or One	Char	3	The code associated with the unit of measure for the billable weight of a shipment.
RatingServiceSelectionResponse/ RatedShipment/BillingWeight/ UnitOfMeasurement/Description	No Zero or One	Char	35	The description for the billable weight associated with the shipment.
RatingServiceSelectionResponse/ RatedShipment/BillingWeight/ Weight	Yes One	Char	5.1	The value from the billable weight associated with the shipment.
RatingServiceSelectionResponse/ RatedShipment/ TransportationCharges	Yes One	Container		Container tag for shipment's transportation charges.
RatingServiceSelectionResponse/ RatedShipment/ TransportationCharges/ CurrencyCode	No Zero or One	Char	3	The currency code associated with the transportation costs for the shipment.
RatingServiceSelectionResponse/ RatedShipment/ TransportationCharges/ MonetaryValue	Yes One	Char	16.2	The value for the transportation costs associated with the shipment.
RatingServiceSelectionResponse/ RatedShipment/ ServiceOptionsCharges	Yes One	Container		Container tag for accessorial charges for the shipment.
RatingServiceSelectionResponse/ RatedShipment/ ServiceOptionsCharges/ CurrencyCode	No Zero or One	Char	3	The currency code associated with the accessorial charges for the shipment.
RatingServiceSelectionResponse/ RatedShipment/ ServiceOptionsCharges/ MonetaryValue	Yes One	Char	16.2	The value for the accessorial charges associated with the shipment.
RatingServiceSelectionResponse/ RatedShipment/TotalCharges	Yes One	Container		Container tag for the total charges for the shipment.
RatingServiceSelectionResponse/ RatedShipment/TotalCharges/ CurrencyCode	No Zero or One	Char	3	The currency code associated with the total charges for the shipment.



## Rates and Service Selection

Table 2: Rates & Service Selection Response Output

Element (Xpath)	Required / Cardinality	Type	Length	Description
RatingServiceSelectionResponse/ RatedShipment/TotalCharges/ MonetaryValue	Yes One	Char	16.2	The value for the total charges associated with the shipment.
RatingServiceSelectionResponse/ RatedShipment/ GuaranteedDaysToDelivery	Yes One	Char	8	The maximum number of days required to deliver the shipment as guaranteed by UPS.
RatingServiceSelectionResponse/ RatedShipment/ ScheduledDeliveryTime	Yes One	Char	6	The latest time of day the shipment will be delivered as guaranteed by UPS.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage	Yes One to Many	Container		Container tag for a package within the shipment.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ TransportationCharges	Yes One	Container		Container tag for the transportation charges for a package within the shipment.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ TransportationCharges/ CurrencyCode	No Zero or One	Char	3	The currency code associated with the transportation charges for the package.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ TransportationCharges/ MonetaryValue	Yes One	Char	9.2	The value for the transportation charges associated with the package.
RatingServiceSelectionResponse/ RatedShipment/ RatedPackage/ ServiceOptionsCharges	Yes One	Container		Container tag for accessorial charges for the package. No value is returned for international shipments.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ ServiceOptionsCharges/ CurrencyCode	No Zero or One	Char	3	The currency code associated with the accessorial charges for the package. No value is returned for international shipments.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ ServiceOptionsCharges/ MonetaryValue	Yes One	Char	9.2	The value for the accessorial charges associated with the package. No value is returned for international shipments.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ TotalCharges	Yes One	Container		Container tag for the total charges for a package within the shipment.



Table 2: Rates &amp; Service Selection Response Output

Element (Xpath)	Required / Cardinality	Type	Length	Description
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ TotalCharges/CurrencyCode	No Zero or One	Char	3	The currency code associated with the total charges for the package.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ TotalCharges/MonetaryValue	Yes One	Char	9.2	The value for the total charges associated with the package.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ Weight	Yes One	Char	5.1	The weight of the package in the rated shipment.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ BillingWeight	Yes One	Container		Container tag for package's billing weight.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ BillingWeight/ UnitOfMeasurement	No Zero or One	Container		Container tag for the unit of measure of a package's billing weight.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ BillingWeight/ UnitOfMeasurement/Code	No Zero or One	Char	3	The code associated with the unit of measure for the billable weight of a package.
RatingServiceSelectionResponse/ RatedShipment/RatedPackage/ BillingWeight/Weight	Yes One	Char	5.1	The value from the billable weight associated with a package.
RatingServiceSelectionResponse/ RatedShipment/NegotiatedRates	No Zero or One	Container		Container tag for Negotiated Rates.
RatingServiceSelectionResponse/ RatedShipment/NegotiatedRates/ NetSummaryCharges	*Yes Zero or One	Container		Container tag for Net Summary Charges.
RatingServiceSelectionResponse/ RatedShipment/ NegotiatedRates/ NetSummaryCharges/ GrandTotal	*Yes Zero or One	Container		Container tag for Grand Total.
RatingServiceSelectionResponse/ RatedShipment/NegotiatedRates/ NetSummaryCharges/ GrandTotal/CurrencyCode	*Yes	Char	3	Currency Code type for the Grand Total.
RatingServiceSelectionResponse/ RatedShipment/NegotiatedRates/ NetSummaryCharges/ GrandTotal/MonetaryValue	*Yes	Char	1..19	Net Summary Grand Total Charges for Negotiated Rates.



## Rates and Service Selection

### XML Rates & Service Selection Examples

The following are fabricated XML documents showing Rates & Service Selection Requests and Responses used in communicating with UPS OnLine Tools server.

Each transaction is made up of two separate XML request documents. These requests are concatenated and posted to the UPS web servers using a single HTTP Post.

When validating the request XML documents, do not treat the two concatenated documents as a single XML document. XML parsers can not parse two concatenated documents. Process each XML Request separately.

UPS will separate the two documents and parse them individually. To ensure this occurs, verify that `<?xml version="1.0"?>` is at the top of each XML request document.

#### Request #1: Simple Rates and Service Selection Request

```
<?xml version="1.0"?>
<AccessRequest xml:lang="en-US">
  <AccessLicenseNumber>YOURACCESSLICENSENUMBER</AccessLicenseNumber>
  <UserId>YOURUSERID</UserId>
  <Password>YOURPASSWORD</Password>
</AccessRequest>
<?xml version="1.0"?>
<RatingServiceSelectionRequest xml:lang="en-US">
  <Request>
    <TransactionReference>
      <CustomerContext>Bare Bones Rate Request</CustomerContext>
      <XpciVersion>1.0001</XpciVersion>
    </TransactionReference>
    <RequestAction>Rate</RequestAction>
    <RequestOption>Rate</RequestOption>
  </Request>
  <PickupType>
    <Code>01</Code>
  </PickupType>
  <Shipment>
    <Shipper>
      <Name>YOURNAME</Name>
      <AttentionName>YOURATTENTIONNAME</AttentionName>
      <TaxIdentificationNumber>YOURTAXIDNUMBER</TaxIdentificationNumber>
      <PhoneNumber>YOURPHONENUMBER</PhoneNumber>
      <FaxNumber>YOURFAXNUMBER</FaxNumber>
      <ShipperNumber>YOURSHIPPERNUMBER</ShipperNumber>
      <Address>
        <PostalCode>44129</PostalCode>
        <CountryCode>US</CountryCode>
```



```
        </Address>
    </Shipper>
    <ShipTo>
        <Address>
            <PostalCode>44129</PostalCode>
            <CountryCode>US</CountryCode>
        </Address>
    </ShipTo>
    <ShipFrom>
        <Address>
            <PostalCode>32779</PostalCode>
            <CountryCode>US</CountryCode>
        </Address>
    </ShipFrom>
    <Service>
        <Code>01</Code>
    </Service>
    <Package>
        <PackagingType>
            <Code>02</Code>
        </PackagingType>
        <Dimensions>
            <UnitOfMeasurement>
                <Code>IN</Code>
            </UnitOfMeasurement>
            <Length>20</Length>
            <Width>20</Width>
            <Height>20</Height>
        </Dimensions>
        <PackageWeight>
            <UnitOfMeasurement>
                <Code>LBS</Code>
            </UnitOfMeasurement>
            <Weight>23</Weight>
        </PackageWeight>
    </Package>
</Shipment>
</RatingServiceSelectionRequest>
```

### Response #1: Simple Rates and Service Selection Response

```
<?xml version="1.0" encoding="UTF-8"?>
<RatingServiceSelectionResponse>
    <Response>
        <TransactionReference>
```



## Rates and Service Selection

```
<CustomerContext>Bare Bones Rate Request</CustomerContext>
  <XpciVersion>1.0001</XpciVersion>
</TransactionReference>
  <ResponseStatusCode>1</ResponseStatusCode>
  <ResponseStatusDescription>Success</ResponseStatusDescription>
</Response>
<RatedShipment>
  <Service>
    <Code>01</Code>
  </Service>
  <BillingWeight>
    <UnitOfMeasurement>
      <Code>LBS</Code>
    </UnitOfMeasurement>
    <Weight>42.0</Weight>
  </BillingWeight>
  <TransportationCharges>
    <CurrencyCode>USD</CurrencyCode>
    <MonetaryValue>108.61</MonetaryValue>
  </TransportationCharges>
  <ServiceOptionsCharges>
    <CurrencyCode>USD</CurrencyCode>
    <MonetaryValue>0.00</MonetaryValue>
  </ServiceOptionsCharges>
  <TotalCharges>
    <CurrencyCode>USD</CurrencyCode>
    <MonetaryValue>108.61</MonetaryValue>
  </TotalCharges>
  <GuaranteedDaysToDelivery>1</GuaranteedDaysToDelivery>
  <ScheduledDeliveryTime>10:30 A.M.</ScheduledDeliveryTime>
  <RatedPackage>
    <TransportationCharges>
      <CurrencyCode>USD</CurrencyCode>
      <MonetaryValue>108.61</MonetaryValue>
    </TransportationCharges>
    <ServiceOptionsCharges>
      <CurrencyCode>USD</CurrencyCode>
      <MonetaryValue>0.00</MonetaryValue>
    </ServiceOptionsCharges>
    <TotalCharges>
      <CurrencyCode>USD</CurrencyCode>
      <MonetaryValue>108.61</MonetaryValue>
    </TotalCharges>
    <Weight>23.0</Weight>
    <BillingWeight>
```



```

        <UnitOfMeasurement>
            <Code>LBS</Code>
        </UnitOfMeasurement>
        <Weight>42.0</Weight>
    </BillingWeight>
</RatedPackage>
</RatedShipment>
</RatingServiceSelectionResponse>

```

## Request #2: Complex Rates and Service Selection with Negotiated Rates requested

```

<?xml version="1.0"?>
<AccessRequest xml:lang="en-US">
    <AccessLicenseNumber>YOURACCESSLICENSENUMBER</AccessLicenseNumber>
    <UserId>YOURUSERID</UserId>
    <Password>YOURPASSWORD</Password>
</AccessRequest>
<?xml version="1.0"?>
<RatingServiceSelectionRequest xml:lang="en-US">
    <Request>
        <TransactionReference>
            <CustomerContext>Complex Rate Request</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <RequestAction>Rate</RequestAction>
        <RequestOption>Rate</RequestOption>
    </Request>
    <PickupType>
        <Code>01</Code>
    </PickupType>
    <Shipment>
        <Shipper>
            <Name>YOURNAME</Name>
            <AttentionName>YOURATTENTIONNAME</AttentionName>
            <TaxIdentificationNumber>YOURTAXIDNUMBER</TaxIdentificationNumber>
            <PhoneNumber>YOURPHONENUMBER</PhoneNumber>
            <FaxNumber>YOURFAXNUMBER</FaxNumber>
            <ShipperNumber>YOURSHIPPERNUMBER</ShipperNumber>
            <Address>
                <PostalCode>44129</PostalCode>
                <CountryCode>US</CountryCode>
            </Address>
        </Shipper>
        <ShipTo>
            <Address>

```



## Rates and Service Selection

```
<PostalCode>44129</PostalCode>
  <CountryCode>US</CountryCode>
  <ResidentialAddressIndicator/>
</Address>
</ShipTo>
<ShipFrom>
  <Address>
    <PostalCode>32779</PostalCode>
    <CountryCode>US</CountryCode>
  </Address>
</ShipFrom>
<ShipmentWeight>
  <UnitOfMeasurement>
    <Code>LBS</Code>
  </UnitOfMeasurement>
  <Weight>23</Weight>
</ShipmentWeight>
<Service>
  <Code>01</Code>
</Service>
<Package>
  <PackagingType>
    <Code>02</Code>
  </PackagingType>
  <Dimensions>
    <UnitOfMeasurement>
      <Code>IN</Code>
    </UnitOfMeasurement>
    <Length>50</Length>
    <Width>15</Width>
    <Height>15</Height>
  </Dimensions>
  <PackageWeight>
    <UnitOfMeasurement>
      <Code>LBS</Code>
    </UnitOfMeasurement>
    <Weight>23</Weight>
  </PackageWeight>
  <OversizePackage>1</OversizePackage>
  <AdditionalHandling/>
  <PackageServiceOptions>
    <COD>
      <CODFundsCode>0</CODFundsCode>
      <CODCode>3</CODCode>
      <CODAmount>
```



```

        <CurrencyCode>USD</CurrencyCode>
        <MonetaryValue>1000</MonetaryValue>
    </CODAmount>
</COD>
    <InsuredValue>
        <CurrencyCode>USD</CurrencyCode>
        <MonetaryValue>1000</MonetaryValue>
    </InsuredValue>
</PackageServiceOptions>
</Package>
<ShipmentServiceOptions>
    <SaturdayDeliveryIndicator/>
</ShipmentServiceOptions>
<RateInformation>
    <NegotiatedRatesIndicator/>
</RateInformation>
</Shipment>
</RatingServiceSelectionRequest>

```

## Response #2: Complex Rates and Service Selection Response with Negotiated Rates

```

<?xml version="1.0" encoding="UTF-8"?>
<RatingServiceSelectionResponse>
    <Response>
        <TransactionReference>
            <CustomerContext>Complex Rate Request</CustomerContext>
            <XpciVersion>1.0001</XpciVersion>
        </TransactionReference>
        <ResponseStatusCode>1</ResponseStatusCode>
        <ResponseStatusDescription>Success</ResponseStatusDescription>
    </Response>
    <RatedShipment>
        <Service>
            <Code>01</Code>
        </Service>
        <RatedShipmentWarning>Oversize 1 does not apply, and has
            automatically been removed from Package 1.</RatedShipmentWarning>
        <BillingWeight>
            <UnitOfMeasurement>
                <Code>LBS</Code>
            </UnitOfMeasurement>
            <Weight>58.0</Weight>
        </BillingWeight>
        <TransportationCharges>
            <CurrencyCode>USD</CurrencyCode>

```



## Rates and Service Selection

```
<MonetaryValue>138.70</MonetaryValue>
</TransportationCharges>
<ServiceOptionsCharges>
  <CurrencyCode>USD</CurrencyCode>
  <MonetaryValue>27.65</MonetaryValue>
</ServiceOptionsCharges>
<TotalCharges>
  <CurrencyCode>USD</CurrencyCode>
  <MonetaryValue>166.35</MonetaryValue>
</TotalCharges>
<GuaranteedDaysToDelivery>1</GuaranteedDaysToDelivery>
<ScheduledDeliveryTime>12:00 Noon</ScheduledDeliveryTime>
<RatedPackage>
  <TransportationCharges>
    <CurrencyCode>USD</CurrencyCode>
    <MonetaryValue>138.70</MonetaryValue>
  </TransportationCharges>
  <ServiceOptionsCharges>
    <CurrencyCode>USD</CurrencyCode>
    <MonetaryValue>15.15</MonetaryValue>
  </ServiceOptionsCharges>
  <TotalCharges>
    <CurrencyCode>USD</CurrencyCode>
    <MonetaryValue>138.70</MonetaryValue>
  </TotalCharges>
  <Weight>23.0</Weight>
  <BillingWeight>
    <UnitOfMeasurement>
      <Code>LBS</Code>
    </UnitOfMeasurement>
    <Weight>58.0</Weight>
  </BillingWeight>
</RatedPackage>
<NegotiatedRates>
  <NetSummaryCharges>
    <GrandTotal>
      <CurrencyCode>USD</CurrencyCode>
      <MonetaryValue>135.54</MonetaryValue>
    </GrandTotal>
  </NetSummaryCharges>
</NegotiatedRates>
</RatedShipment>
</RatingServiceSelectionResponse>
```



## Rates & Service Selection Error Conditions

Several errors can be encountered during the processing of Rates & Service Selection requests. Some errors are high in severity while others serve as warnings. The errors numbers are classified according to the table below.

Table 3: Error Code Range

Error Code	Description
01xxxx	XML error.
02xxxx	Architecture error.
11xxxx	Rates & Service Selection - specific error.

There are three levels of errors:

- **Hard Error**—Hard Errors represent the highest level of severity and signify that the entire XML request is invalid. Data modifications must be made to the document prior to re-sending. Possible causes of Hard Errors are XML format discrepancies, missing XML elements, invalid data, etc.
- **Transient Error**—Transient Errors may be recoverable when the XML request is re-sent. Data modifications are not necessary, but the XML request must be re-sent for attempted processing. Causes of Transient Errors include server connectivity or availability outages, database failure, system time-out, etc. Transient Errors are accompanied by a `MinimumRetrySeconds` element that specifies the duration of time required before the request can be re-sent.
- **Warning**—Warnings represent the lowest severity and are stated even though processing will continue.

When an error is encountered, it may affect multiple data elements. The user should inspect the `Error/ErrorLocation/ErrorLocationElementName` element included in the error to determine the name of the invalid element.

```
<Error>
  <ErrorSeverity>Hard</ErrorSeverity>
  <ErrorCode>10002</ErrorCode>
  <ErrorDescription>The XML document is well formed but the
    document is not valid</ErrorDescription>
  <ErrorLocation>
    <ErrorLocationElementName>ShipmentConfirmRequest/Shipment/Package/
      PackageServiceOptions/COD/CODCode</ErrorLocationElementName>
  </ErrorLocation>
</Error>
```

The error code can be found in the `<Response>` container which is part of every document returned by UPS OnLine XML Tools. The `<ResponseStatusCode>` will contain the error code and the `<ResponseStatusDescription>` will contain the natural language description.



## Rates and Service Selection

```
<Response>
  <TransactionReference>
    <CustomerContext>RatingandService</CustomerContext>
    <XpciVersion>1.0001</XpciVersion>
  </TransactionReference>
  <ResponseStatusCode>0</ResponseStatusCode>
  <ResponseStatusDescription>Failure</ResponseStatusDescription>
</Response>
```



Table 4: XML Error Codes

Error Code	Error Severity	Description
110000	Hard	Rating and Service Selection currently unavailable.
110001	Transient	Rating and Service Selection temporarily unavailable.
110002	Hard	No packages in shipment
110003	Hard	Maximum number of packages exceeded
110005	Hard	This multipiece shipment contains one or more letters.
110006	Hard	Two different shipment notification memos were provided at either the shipment- or package-level. Only one memo is allowed per level.
110050	Hard	Illegal RequestAction
110051	Hard	Illegal RequestOption
110099	Hard	Validation Error: {0}
110101	Hard	Missing/Invalid shipper name
110102	Hard	Missing/Invalid shipper address line 1
110103	Hard	Invalid shipper address line 2
110104	Hard	Invalid shipper address line 3
110105	Hard	Missing Illegal Shipper/Address/City
110106	Hard	Missing/Illegal Shipper/Address/StateProvCode
110107	Hard	Missing/Illegal Shipper/PostalCode. {0}
110108	Hard	Missing/Illegal Shipper/CountryCode
110109	Hard	Missing/Illegal Shipper/PhoneNumber
110110	Hard	Missing/Illegal Shipper/AttentionName
110111	Hard	Shipment/Shipper/EmailAddress cannot exceed a length of 50 characters
110112	Hard	Shipment/Shipper/EmailAddress is an invalid format
110113	Hard	Shipper number must contain alphanumeric characters only
110114	Hard	Shipper/PhoneNumber/StructuredPhoneNumber/PhoneExtension cannot exceed the length of 4.
110115	Hard	Shipper/PhoneNumber must be at least 10 alphanumeric characters
110116	Hard	Shipper/PhoneNumber/StructuredPhoneNumber/PhoneExtension must contain only numbers



## Rates and Service Selection

Table 4: XML Error Codes

Error Code	Error Severity	Description
110117	Hard	Shipper/PhoneNumber/StructuredPhoneNumber/PhoneExtension is only available if the shipper is located in US, Puerto Rico or Canada
110118	Hard	Shipper/PhoneNumber/StructuredPhoneNumber/PhoneExtension is only valid if a phone number is given
110119	Hard	Shipper phone number and phone extension together cannot be more than 15 digits long
110120	Hard	The country associated with Shipper/ShipperNumber must be the same as the shipments origin country
110121	Hard	Invalid Shipper/ShipperNumber
110122	Hard	Shipment/Shipper/EmailAddress is an invalid format
110200	Hard	Missing/Illegal ShipTo/CompanyName
110201	Hard	Missing/Illegal ShipTo/AttentionName
110202	Hard	Missing/Illegal ShipTo/Address/AddressLine1
110203	Hard	Illegal ShipTo/Address/AddressLine2
110204	Hard	Illegal ShipTo/Address/AddressLine3
110205	Hard	Missing/Illegal ShipTo/Address/City
110206	Hard	Missing/Illegal ShipTo/Address/StateProvCode
110207	Hard	Missing/Illegal ShipTo/Address/PostalCode. {0}
110208	Hard	Missing/Illegal ShipTo/Address/CountryCode
110209	Hard	Missing/Illegal ShipTo/PhoneNumber
110210	Hard	Shipment/ShipTo/EmailAddress cannot exceed a length of 50 characters
110211	Hard	Shipment/ShipTo/EmailAddress is an invalid format
110212	Hard	ShipTo/PhoneNumber/StructuredPhoneNumber/PhoneExtension cannot exceed the length of 4
110213	Hard	ShipTo/PhoneNumber must be at least 10 alphanumeric characters
110214	Hard	ShipTo/PhoneNumber/StructuredPhoneNumber/PhoneExtension must contain only numbers
110215	Hard	ShipTo/PhoneNumber/StructuredPhoneNumber/PhoneExtension is only available if the shipper is located in US, Puerto Rico or Canada
110216	Hard	ShipTo/PhoneNumber/StructuredPhoneNumber/PhoneExtension is only valid if a phone number is given



Table 4: XML Error Codes

Error Code	Error Severity	Description
110217	Hard	ShipTo phone number and phone extension together cannot be more than 15 digits long
110300	Hard	Missing/Illegal ShipFrom/CompanyName
110301	Hard	Missing/Illegal ShipFrom/AttentionName
110302	Hard	Missing/Illegal ShipFrom/Address/AddressLine1
110303	Hard	Illegal ShipFrom/Address/AddressLine2
110304	Hard	Illegal ShipFrom/Address/AddressLine3
110305	Hard	Missing/Illegal ShipFrom/Address/City
110306	Hard	Missing/Illegal ShipFrom/Address/StateProvCode
110307	Hard	Missing/Illegal ShipFrom/Address/PostalCode. {0}
110308	Hard	Missing/Illegal ShipFrom/Address/CountryCode
110309	Hard	Missing/Illegal ShipFrom/PhoneNumber
110310	Hard	Shipment/ShipFrom/EmailAddress cannot exceed a length of 50 characters
110311	Hard	Shipment/ShipFrom/EmailAddress is an invalid format
110312	Hard	ShipFrom/PhoneNumber/StructuredPhoneNumber/PhoneExtension cannot exceed the length of 4
110313	Hard	ShipFrom/PhoneNumber must be at least 10 alphanumeric characters
110314	Hard	ShipFrom/PhoneNumber/StructuredPhoneNumber/PhoneExtension must contain only numbers
110315	Hard	ShipFrom/PhoneNumber/StructuredPhoneNumber/PhoneExtension is only available if the shipper is located in US, Puerto Rico or Canada
110316	Hard	ShipFrom/PhoneNumber/StructuredPhoneNumber/PhoneExtension is only valid if a phone number is given
110317	Hard	The ShipFrom country must be the same as the Shipper country
110318	Hard	ShipFrom phone number and phone extension together cannot be more than 15 digits long
110400	Hard	The shipment is missing payment information
110401	Hard	Missing/Illegal PaymentInformation/Prepaid/BillShipper
110402	Hard	Missing/Illegal PaymentInformation/Prepaid/BillShipper/CreditCardType
110403	Hard	Missing/Illegal PaymentInformation/Prepaid/BillShipper/CreditCardNumber



## Rates and Service Selection

Table 4: XML Error Codes

Error Code	Error Severity	Description
110404	Hard	Missing/Illegal PaymentInformation/Prepaid/BillShipper/CreditCardExpirationDate
110406	Hard	Mismatch Credit Card Type/Credit Card Number
110407	Hard	The credit card you have provided in PaymentInformation/Prepaid/BillShipper/CreditCard has expired
110408	Hard	Missing PaymentInformation/Prepaid/BillShipper/CreditCard/Type
110409	Hard	Error validating backup credit card
110410	Hard	One payment method allowed for PaymentInformation/Prepaid/BillShipper
110411	Hard	PaymentInformation/Prepaid/BillShipper/CreditCard is not allowed for shipments whose origin is not US or Puerto Rico
110412	Hard	Missing/Invalid PaymentInformation/Prepaid/BillShipper/AccountNumber
110413	Hard	The shipper number PaymentInformation/Prepaid/BillShipper/AccountNumber cannot be billed because the account is not active
110414	Hard	Credit card authorization failed, contact your financial institution
110500	Hard	Missing/Illegal Service/Code
110502	Hard	InvoiceLineTotal/MonetaryValue must be greater than 0
110503	Hard	Shipment/Description must not exceed the length of 35 characters
110504	Hard	InvoiceLineTotal is not allowed for this shipment
110505	Hard	Saturday Delivery Option cannot be used for this shipment
110509	Hard	Invalid shipment declared value
110512	Hard	Shipment/Description is required for this shipment
110513	Hard	The first Email Address used for Email Shipment Notification exceeds the maximum length of 50 characters
110514	Hard	Invalid format for first Email Address used for Email Shipment Notification
110515	Hard	ShipmentServiceOptions/ShipmentNotification/EMailMessage/Memo cannot exceed the length of 150 characters
110516	Hard	The first Email Address used for Email Shipment Notification is missing or contains invalid characters
110517	Hard	The second Email Address used for Email Shipment Notification exceeds the maximum length of 50 characters



Table 4: XML Error Codes

Error Code	Error Severity	Description
110518	Hard	The format of the second Email Address entered in for Email Shipment Notification is invalid
110519	Hard	The second Email Address entered in for Email Shipment Notification is missing or contains invalid characters
110520	Hard	For a shipment, the maximum number of Email Addresses allowed for Email Shipment Notifications is 2
110521	Hard	For a shipment, the maximum number of Memos allowed for Email Shipment Notifications is 1
110522	Hard	Invalid Shipment/AlternateDeliveryTime
110523	Hard	Shipment/DocumentsOnly is invalid with the shipment's origin/destination pair
110524	Hard	Package Pickup Request is not available with this shipment's service
110525	Hard	AlternateDeliveryTime must be between {0} and {1}
110526	Hard	InvoiceLineTotal/MonetaryValue may not exceed the length of 8
110527	Hard	Cannot use multiple types of currency in a shipment
110528	Hard	A shipment can have only one type of UnitOfMeasurement for Dimensions
110529	Hard	A shipment can have only one type of UnitOfMeasurement for a Weight
110539	Hard	InvoiceLineTotal/MonetaryValue is required and must be a whole number
110540	Hard	On Call Air Pickup is not available for this shipment
110546	Hard	{0} is not a valid unit of measurement for weight for this shipment
110547	Hard	{0} is not a valid unit of measurement for dimensions for this shipment
110548	Hard	A shipment cannot have a KGS/IN or LBS/CM as its unit of measurements
110600	Hard	Missing/Invalid Package/PackagingType/Code
110601	Hard	Missing/Illegal Package/PackageWeight/Weight
110602	Hard	Missing/Illegal Combination of Package/Dimensions
110604	Hard	Illegal PackageServiceOptions/DeclaredInsuranceValue/MonetaryValue
110605	Hard	Mismatch PackageDimensions/PackageType
110606	Hard	Mismatch PackageDimensions/PackageType/PackageWeight



## Rates and Service Selection

Table 4: XML Error Codes

Error Code	Error Severity	Description
110608	Hard	Package/PackageWeight/Weight is required
110609	Hard	All Package Dimensions are required and each must be greater than 0
110610	Hard	Invalid PackageServiceOptions/COD/CODAmount/MonetaryValue
110616	Hard	Package/PackageWeight/Weight cannot exceed a length of 5
110617	Hard	PackageServiceOptions/InsuredValue/MonetaryValue cannot exceed a value of 999
110620	Hard	Package/PackageWeight, Package/DimensionalWeight, Package/OversizePackage and Package/Dimensions do not apply to UPS Envelopes
110621	Hard	PackageServiceOptions/InsuredValue/MonetaryValue cannot be greater than {0} {1}
110622	Hard	Package/Description is required
110623	Hard	Invalid Package/Description
110624	Hard	A Return Shipment can only have one package
110625	Hard	Invalid/Missing Package/ReturnService/Code
110626	Hard	Invalid PackageServiceOptions/COD/ CODFundsCode
110627	Hard	Invalid PackageServiceOptions/COD/CODCode
110628	Hard	Invalid PackageServiceOptions/COD/CODAmount/MonetaryValue
110629	Hard	Invalid PackageServiceOptions/LabelDelivery/EMailMessage/EMailAddress
110630	Hard	Invalid PackageServiceOptions/LabelDelivery/EMailMessage/UndeliverableEMailAddress
110631	Hard	Invalid PackageServiceOptions/LabelDelivery/EMailMessage/Memo
110632	Hard	Invalid PackageServiceOptions/LabelDelivery/EMailMessage/Subject
110633	Hard	Invalid PackageServiceOptions/PickupNotification/EMailMessage/ReplyToEMailAddress
110634	Hard	Invalid PackageServiceOptions/PickupNotification/EMailMessage/EMailAddress
110635	Hard	Invalid PackageServiceOptions/PickupNotification/EMailMessage/UndeliverableEMailAddress



Table 4: XML Error Codes

Error Code	Error Severity	Description
110636	Hard	Invalid PackageServiceOptions/PickupNotification/EMailMessage/Memo
110637	Hard	Invalid PackageServiceOptions/PickupNotification/EMailMessage/Subject
110638	Hard	Invalid PackageServiceOptions/ReturnNotification/EMailMessage/ReplyToEMailAddress
110639	Hard	Invalid PackageServiceOptions/ReturnNotification/EMailMessage/EMailAddress[1 ]
110640	Hard	Invalid PackageServiceOptions/ReturnNotification/EMailMessage/EMailAddress[2 ]
110641	Hard	Invalid PackageServiceOptions/ReturnNotification/EMailMessage/UndeliverableEMailAddress
110642	Hard	Invalid PackageServiceOptions/ReturnNotification/EMailMessage/Memo
110643	Hard	Invalid PackageServiceOptions/ReturnNotification/EMailMessage/Subject
110644	Hard	PackageServiceOptions/LabelDelivery is not valid with the shipments return service type
110645	Hard	PackageServiceOptions/PickupNotification is not valid with the shipments return service
110646	Hard	COD is not valid for the shipment origin and/or destination
110647	Hard	Invalid COD currency code. Please use the destination country currency code.
110700	Hard	Missing/Illegal LabelSpecification/LabelPrintMethod
110701	Hard	Missing/Illegal LabelSpecification/HTTPUserAgent
110702	Hard	Missing/Illegal Label Specification/LabelImageFormat/Code
110703	Hard	Missing/Illegal Combination of LabelSpecification/LabelStockSize
110704	Hard	Missing/Invalid LabelSpecification/ LabelStockSize/Height
110705	Hard	Missing/Invalid LabelSpecification/ LabelStockSize/Width
110710	Hard	Invalid package Delivery Confirmation type
110801	Hard	Address Validation Error on Shipment/Shipper/Address
110802	Hard	Address Validation Error on Shipment/ShipTo/Address
110803	Hard	Address Validation Error on Shipment/ShipFrom/Address
111000	Hard	The maximum per package weight for Hazardous Materials is exceeded.



## Rates and Service Selection

Table 4: XML Error Codes

Error Code	Error Severity	Description
111005	Hard	The COD option cannot be combined with the Return Services option.
111010	Hard	Hazardous materials cannot be shipped using Return Services.
111015	Hard	The Saturday Delivery option cannot be combined with the Return Services option.
111020	Hard	The Delivery Confirmation option cannot be combined with the Return Services option.
111025	Hard	The maximum declared amount was exceeded.
111030	Hard	Packages must weigh more than zero pounds.
111031	Hard	Packages must weigh more than zero kg.
111035	Hard	The maximum per package weight for that service from the selected country is %country.maxPkgWeight% pounds.
111036	Hard	The maximum per package weight for that service from the selected country is %country.maxPkgWeight% kg.
111040	Hard	The Return Services accessories are unavailable with the requested service.
111045	Hard	The Saturday Delivery option is unavailable with the requested service.
111047	Hard	Saturday Delivery may not be combined with this product and container type.
111050	Hard	Package exceeds the maximum size total constraints of %maxLengthGirth% (length + girth where girth is 2 x width plus 2 x height).
111055	Hard	Package exceeds the maximum length constraint of 108 inches.
111056	Hard	This package exceeds the maximum length constraint of 270 cm.
111057	Hard	This measurement system is not valid for the selected country.
111060	Hard	Hazardous Materials cannot be shipped in a UPS Letter.
111063	Hard	The requested accessory cannot be combined with the selected service.
111065	Hard	The shipment of Hazardous Materials to the selected location is unavailable.
111070	Hard	The requested accessory is not allowed with this pickup method.
111075	Hard	The International Declared Value accessory is not valid with a domestic service.
111077	Hard	Hundredweight is not valid for International shipments.
111080	Hard	The Domestic Declared Value accessory is not valid with an international service.



Table 4: XML Error Codes

Error Code	Error Severity	Description
111085	Hard	The requested accessory cannot be added to this shipment.
111086	Hard	Only one Authorized Return Service option is allowed.
111087	Hard	The Authorized Return Service option is not allowed for shipments.
111090	Hard	The requested billing zone is invalid for the selected product.
111091	Hard	The selected service is unavailable to an extended area.
111095	Hard	A zone cannot be determined for the package.
111100	Hard	The requested service is invalid for the selected site.
111105	Hard	The requested accessory key is invalid for the selected site.
111106	Hard	Unsupported country specified.
111107	Hard	An origin postal code must be specified.
111108	Hard	Shipments must have at least 1 package.
111109	Hard	Delivery Area Surcharge Tier is invalid.
111110	Hard	Typically indicates a syntax error in the cfg file.
111115	Hard	The COD amount must be greater than zero.
111120	Hard	The COD amount cannot exceed \$1,000 when a cashiers check or money order is requested.
111121	Hard	The COD value entered exceeds the maximum allowed for cash.
111125	Hard	The COD amount cannot exceed \$50,000.
111126	Hard	The COD value entered exceeds the maximum allowed for check.
111130	Hard	The Saturday Pickup option cannot be combined with the Return Services option.
111135	Hard	The Saturday Pickup option cannot be combined with the Saturday Delivery option.
111140	Hard	The Saturday Pickup option is unavailable with the selected service.
111145	Hard	Only one Delivery Confirmation option is allowed.
111150	Hard	The Delivery Confirmation option is unavailable with the selected service.
111155	Hard	The COD option is unavailable with the selected service.
111160	Hard	The requested accessory option is unavailable with the selected billing option.
111165	Hard	The Verbal Confirmation of Delivery option cannot be combined with the Return Services option.



## Rates and Service Selection

Table 4: XML Error Codes

Error Code	Error Severity	Description
111170	Hard	The Delivery Confirmation option cannot be combined with the Verbal Confirmation of Delivery option.
111175	Hard	The Verbal Confirmation of Delivery option is unavailable with the selected service.
111180	Hard	Consignee Billing is unavailable with the selected service.
111185	Hard	The selected service is unavailable to the desired country.
111190	Hard	Only one Return Services option is allowed.
111195	Hard	The requested billing option is unavailable with the selected service.
111196	Hard	The requested billing option is unavailable with UPS Letters.
111198	Hard	The requested Hundredweight option is unavailable with UPS Letters.
111200	Hard	The requested service Saturday Delivery is unavailable to the selected location.
111205	Hard	The Additional Handling option is unavailable with the selected service.
111206	Hard	The Additional Handling option is unavailable with UPS Letters.
111210	Hard	The requested service is unavailable between the selected locations.
111211	Hard	The requested accessory option is unavailable between the selected locations.
111212	Hard	The requested type of container is unavailable between the selected locations.
111213	Hard	The requested billing option is unavailable between the selected locations.
111214	Hard	Cannot ship between the selected locations.
111215	Hard	The requested service is unavailable to residential destinations.
111217	Hard	The requested service is unavailable between the selected locations.
111220	Hard	The Ship Notification option cannot be combined with the Return Services option.
111222	Hard	A shipment using the Return Services Electronic Return Label option must contain only Goods in Free Circulation.
111225	Hard	The Return Services option is unavailable to the selected location.
111230	Hard	Next Day Air Early A.M. is unavailable with the selected service.



Table 4: XML Error Codes

Error Code	Error Severity	Description
111231	Hard	Switzerland Domestic Container must weigh greater than or equal to 2 Kg.
111232	Hard	Worldwide Express Plus from Europe to Switzerland must be UPS Envelope or document only.
111233	Hard	Next Day Air Early A.M. is unavailable with Hundredweight.
111235	Hard	No more than %acsGrp.grpLimit% of the following may be combined: %acsGrp.grpMembers%.
111240	Hard	The requested accessory may not be applied to a package more than %accs.limit% time(s).
111245	Hard	The Saturday Pickup option cannot be combined with the Shipper Duty Fees option.
111250	Hard	The Saturday Delivery option cannot be combined with the Shipper Duty Fees option.
111255	Hard	The Shipper Duty Fee option is unavailable with the selected service.
111260	Hard	The Shipper Duty Fee option is unavailable with the selected billing option.
111261	Hard	The requested option is unavailable with the selected service.
111262	Hard	The accessory is not valid with the selected option.
111265	Hard	The requested billing option is unavailable to the selected location.
111266	Hard	The requested currency is not a legal tender in this country.
111275	Hard	Cannot create attribute "%attrName%".
111280	Hard	Cannot remove attribute "%attrName%".
111285	Hard	The postal code %postal% is invalid for %state% %country%.
111286	Hard	%state% is not a valid state abbreviation for %country%.
111290	Hard	The requested billing option is invalid.
111295	Hard	Package %child.index% failed validation in shipment.
111300	Hard	The Shipper Pays Duty - VAT Unpaid option is unavailable with the selected option.
111305	Hard	The Shipper Pays Duty - VAT Unpaid option is unavailable with the selected service.
111310	Hard	The Shipper Pays Duty - VAT Unpaid option is unavailable with the selected billing option.'
111315	Hard	The Authorized Return Service option is unavailable with the selected accessory.



## Rates and Service Selection

Table 4: XML Error Codes

Error Code	Error Severity	Description
111320	Hard	The Authorized Return Service option is unavailable with the selected service.
111325	Hard	The Authorized Return Service is unavailable with the selected billing option.
111330	Hard	The Certificate of Origin is unavailable with the selected accessory.
111335	Hard	The Certificate of Origin is unavailable with the selected service.
111340	Hard	The Certificate of Origin is unavailable with the selected billing option.
111343	Hard	The Certificate of Origin is unavailable from the selected origin.
111345	Hard	The Shipper Export Declaration is unavailable with the selected accessory.
111350	Hard	The Shipper Export Declaration is unavailable with the selected service.
111355	Hard	The Shipper Export Declaration is unavailable with the selected billing option.
111360	Hard	The Worldwide Express Plus is unavailable with the selected service.
111363	Hard	The One Time Pickup is unavailable with the selected service.
111365	Hard	The requested service is not available through the selected acquisition type.
111370	Hard	Unsupported Pickup Type.
111375	Hard	The requested service is not valid for shipments with more than 1 package.
111380	Hard	The requested Package service may not be consolidated with the selected shipment service.
111385	Hard	The requested Package billing option does not match the selected shipment billing option.
111390	Hard	The requested Package billing tier does not match the selected shipment billing tier.
111395	Hard	Package consignee "%pkg.dest.company%" does not match the shipment consignee "%ship.dest.company%".
111400	Hard	Package consignee street address "%pkg.dest.street1%" does not match the shipment consignee street address "%ship.dest.street1%".
111405	Hard	Package consignee street address "%pkg.dest.street2%" does not match the shipment consignee street address "%ship.dest.street2%".



Table 4: XML Error Codes

Error Code	Error Severity	Description
111410	Hard	Package consignee street address "%pkg.dest.street3%" does not match the shipment consignee street address "%ship.dest.street3%" .
111415	Hard	Package consignee city "%pkg.dest.city%" does not match the shipment consignee city "%ship.dest.city%" .
111420	Hard	Package consignee state "%pkg.dest.state%" does not match the shipment consignee state "%ship.dest.state%" .
111425	Hard	Package consignee postal code does not match the shipment consignee postal code.
111430	Hard	Package consignee country does not match the shipment consignee country.
111431	Hard	All packages in the shipment must have the same UPS shipper number as the shipment.
111435	Hard	All packages in the shipment must have the Saturday Delivery option if 1 package has it.
111440	Hard	All packages in the shipment must have the Saturday Pickup option if 1 package has it.
111445	Hard	UPS does not allow Hazardous Materials in shipments consisting of more than one piece.
111447	Hard	UPS does not allow Hazardous Materials in Hundredweight shipments.
111450	Hard	Only one type of Return Service option is allowed per package.
111453	Hard	Hundredweight is not valid with Return Service options.
111455	Hard	All packages in the shipment must have the Return Services option if 1 package has it.
111456	Hard	All packages in the shipment must have the Residential option if 1 package has it.
111457	Hard	Shipments with the Residential option set must have the Residential option set on all packages.
111460	Hard	Shipments cannot exceed a COD amount of \$5000 when requesting a cashiers check or money order.
111465	Hard	The selected Package access method does not match the shipment access method.
111470	Hard	Invalid UPS Hundredweight tier. Not using UPS HundredWeight rates.
111500	Hard	Special rates are unavailable for the selected service using requested containers.



## Rates and Service Selection

Table 4: XML Error Codes

Error Code	Error Severity	Description
111501	Hard	The selected container is not valid with the requested accessory option.
111502	Hard	The selected country allows Return Services only.
111510	Hard	Unsupported container type requested.
111511	Hard	Unsupported accessory requested.
111513	Hard	Unsupported service requested.
111515	Hard	Weight of %weight.actual% exceeds maximum for rating the requested container. Using standard package rates.
111519	Hard	The selected Package rating category does not match the shipment rating category.
112000	Hard	Oversize1 and oversize2 can not be set on the same package.
112001	Hard	Oversize 1 (%overSize1MinWeight%) or Oversize 2 (%overSize2MinWeight%) waiver invalid.
113021	Hard	The Ship To postal code is invalid for the selected location.
115581	Hard	Unsupported Customer Classification Code.
115582	Hard	Invalid Customer Classification Code.
250000	Hard	No XML declaration in the XML document.
250001	Hard	Invalid Access License for the tool. Please re-license.
250002	Hard	Invalid UserID/password.
250003	Hard	Invalid Access License number.
250004	Hard	Incorrect UserID or Password.
250005	Hard	No Access Identification provided.
250009	Hard	License Number not found in the UPS database.
250019	Hard	Invalid field value.
250047	Hard	License number revoked.
250050	Hard	License system not available.
250052	Hard	Authorization system is currently unavailable.



Table 5: A list of warnings

Description
Package %child.index% in the shipment contains a warning.
The Origin postal code is invalid for the selected location.
The Ship To postal code is invalid for the selected location.
Oversize 1 indicator has automatically been set on Package %package.index%.
The selected service may not guarantee Early AM arrival to the requested location.
Additional Handling has automatically been set on Package %package.index%.
An Extended Area surcharge of %xtndCharge% has been added to the service cost.
The requested service may not guarantee Next Day arrival to the selected location.
Check the UPS Service Guide for supported Saturday delivery destinations within the selected country.
The requested service may not guarantee Second Day arrival to the selected location.
The Second Day Air service may not guarantee Second Day arrival to the selected location.
Oversize 2 indicator has automatically been set on Package %package.index%.
Oversize 2 has automatically been set on Package %package.index%.
Oversize 1 does not apply and has automatically been removed from Package %package.index%.
Oversize 2 does not apply and has automatically been removed from Package %package.index%.
Weight is between %localOverSize2MinWeight% lbs. and one less than %localOverSize3MinWeight% lbs., Oversize 3 has automatically been set on Package %package.index%.
Oversize 3 indicator has automatically been set on Package %package.index%.
Oversize 3 does not apply, and has automatically been removed from Package %package.index%.
A Large Air Package Minimum Surcharge has been applied to Package %package.index%.
The maximum declared value amount for the 1-Attempt option is \$1,000.
The maximum declared value amount for the Print and Mail option is \$1,000.
The maximum declared value amount for the Print Return Label option is \$1,000.
The maximum declared value amount for the Electronic Delivery option is \$1,000.
The maximum declared value amount for the 3-Attempt option is \$50,000.
Hundredweight (CWT) rate has automatically been applied to this shipment



## Rates and Service Selection

**Table 5:** A list of warnings

Description
Large Package Surcharge has automatically been set on Package %package.index%.
User Id and Shipper Number combination is not qualified to receive Negotiated Rates.
Negotiated Rates are unavailable at this time.





UPS ONLINE TOOLS

# Customer Integration Environment



## Customer Integration Environment

The Customer Integration Environment 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 the Customer Integration Environment maintains system availability 24 hours, 7 days each week, there are occasional system down times to allow for server maintenance.

### Rates & Service Selection

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Test your Rates & Service 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.

#### Negotiated Rates

Negotiated Rates are available in the UPS Customer Integration Environment and are returned when the Negotiated Rate indicator is provided in the rate request. The Negotiated Rates returned do not reflect the contractual rate and may vary.

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 Selection.

#### 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>.

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 Rate and Service Selection software to:

<https://wwwcie.ups.com/ups.app/xml/Rate>.

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

<https://www.ups.com/ups.app/xml/Rate>.



## Rates and Service Selection

### System Availability

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

### Server Availability Check

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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/Rate>

You should see the following in the browser window:

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





UPS ONLINE TOOLS

# Technical Support



## Technical Support

### **For customers in the United States:**

A technical support form is available from the E-Business web site. To access this form login to MyUPS with your UserID and Password. Click to access the Contact UPS page. Then, click on Internet Technical Support. Then, click on OnLine Tools Support. Then, click on Receive Technical Support for UPS e-Commerce Solutions. Finally, click on I'd like technical support for UPS OnLine Tools. This will present you with a form to complete with information regarding the issue for which you are looking for support. A response to your inquiry will be sent within one business day.

If you have not received the UPS OnLine Tools from the E-Business web site, please contact your UPS OnLine Tools representative for technical support.

### **For International customers outside the United States:**

A technical support form is available. Please access your country's UPS web page and Login to MyUPS.com with your UserID and Password. Click to access the Business Solutions Page. Then, click on UPS OnLine Tools. From the left navigation menu, click on Support. Select Technical Support from the web page. Complete the required information and click Submit.



UPS ONLINE TOOLS

# Appendices



## Appendix A

### Glossary of Terms

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- **Accessorials**—Optional service options selected by a customer.
- **API**—Application Programming Interface.
- **Application**—Customer's application integrated with the UPS OnLine Tools.
- **Billable Weight**—The weight used for rate calculation. Depending on the shipment characteristics, this varies from actual weight to dimensional weight to oversize rating.
- **Client Machine**—The computer from which a user communicates with UPS.
- **Daily Pickup Account Holder**—Shipper with an established account at UPS whose packages are picked up on a daily basis.
- **Consignee**—Receiver of a shipment.
- **Dimensional Weight**—Dimensional weight considers density, which is the amount of space a package occupies in relation to its actual weight. Calculations are based on the International Air Transport Association (IATA) volumetric standards. For additional information, see the UPS Service Guide.
- **Domestic Shipment**—Any shipment where the Shipper Country is the same as the Consignee Country.
- **Destination**—Address the shipment was sent to.
- **DTD**—Document Type Definition. Set of rules which specify how to use XML.
- **HTTP**—Hypertext Transfer Protocol. An application level protocol for distributed, collaborative and hypermedia information systems. HTTP is a generic protocol used to communicate between user agents and proxies/gateways to other Internet systems.



## Rates and Service Selection

- **HTTPS**—Secure Hypertext Transfer Protocol. Requires the use of the SSL protocol.
- **Hundredweight**—Service rates that apply only to Ground shipments with a total actual weight of 200 pounds or Air shipments with a total actual weight of 100 pounds or more. For additional information, see the UPS Service Guide.
- **Multi-piece shipment**—A group of packages being shipped together from one shipper location to one consignee. The packages must have the same service (Next Day Air, 2nd Day Air, Ground, etc.) and the same collection of accessorials (Saturday Delivery, Additional Handling, etc.).
- **Origin**—Pickup location for a shipment.
- **Oversize**—Adjusted rate calculation performed when the packages weight and dimensions exceed published thresholds. For additional information, see the UPS Service Guide.
- **Premium Tools** - Customers must be pre-approved for both the UPS Shipping and Signature Tracking Tools prior to downloading the technical documentation. Once implemented, customers must successfully complete a verification process before moving into the UPS production environment.
- **Published Rate**—The standard rates for UPS services.
- **Reference Number**—Customer-defined number, that may or may not be unique, used to identify a shipment.
- **Service Guide**—Describes the services supported by UPS (<http://www.ups.com/using/svc-index.html>).
- **Shipment**—A group of packages being shipped together from one shipper location to one consignee. The packages must have the same service (Next Day Air, 2nd Day Air, Ground, etc.) and the same collection of accessorials (Saturday Delivery, Additional Handling, etc.).
- **Shipment Identification Number**—UPS-assigned number that uniquely identifies a shipment.
- **Shipper**—UPS account holder. The shipper is billed for all shipments.



- **Secure Socket Layer (SSL)**—Socket protocol that supports authentication, data privacy and secures data from tampering.
- **TCP/IP**—Transport Control Protocol/Internet Protocol. A common suite of communication protocols used to exchange information between computers or processes within a computer. Additional protocols use TCP/IP to accomplish an application specific task such as HTTPS.
- **Tracking Number**—UPS-defined number that uniquely identifies a package.
- **URL**—Uniform Resource Locator. The network address of a service or content.
- **XML**—eXtensible Markup Language. An open standard for defining markup languages to represent structured information over the web. XML documents are used for business-to-business communication and data interchange between dissimilar systems. Network transfers occur with standard HTTPS over TCP/IP.
- **XPCI**—XML Package Carrier Interface. Defines a vocabulary and structure for describing packages, shipments and the activity details for package carriers and their customers. XPCI is a set of DTDs that define the terminology, transaction enveloping and XML message definitions.



## Appendix B

### Status Codes

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Each HTTP response contains a status code. The following table lists the possible values:

Table 1: HTTP Status Codes

Code	Description
200	Request processed successfully.
240	Request Processed, some warnings exist. Check XML Doc for details.
250	Request could not be processed. Check XML Doc for error information.
500	UPS OnLine Tool unavailable; try again later.



## Appendix C

## Reference Tables

Table 2: Universal Rules

Subject	Rule
Dimension Values	<p>Dimension values, such as length, width, and height, will be rounded to whole numbers where fractions that end in .5 or more are rounded up and fractions ending in less than .5 are rounded down.</p> <p>For customer supplied packaging types customer supplies the dimensions and for UPS packaging types the length, width and height is defaulted.</p>
Phone Number	<p>The value of the PhoneNumber elements are mixed. A PhoneNumber element can contain #PCDATA or StructuredPhoneNumber, but not both. StructuredPhoneNumber contains four elements: PhoneCountryCode, PhoneDialPlanNumber, PhoneLineNumber and PhoneExtension. PhoneCountryCode is the country code portion of the phone number. PhoneDialPlanNumber contains characters used to connect to the country's area switch. PhoneLineNumber contains characters used to connect to a specific end terminal. PhoneExtension contains characters for a phone extension. For US phone numbers, PhoneCountryCode should not be used. For non US phone numbers, the combined length of the values for PhoneCountryCode, PhoneDialPlanNumber, PhoneLineNumber and PhoneExtension must be 15 or less.</p> <p>For US, Canadian, and Caribbean phone numbers; PhoneCountryCode is not used with US numbers, PhoneDialPlanNumber would be the area code, PhoneLineNumber would be the telephone number, and PhoneExtension would be the extension number. An example of a US phonenumber follows; PhoneCountryCode element would not have a value, PhoneDialPlanNumber element's value is "972", the PhoneLineNumber element's value is "5551212" and the PhoneExtension element's value is "5678". This information together logically represents the phone number (972)555-1212 with the phone extension 5678.</p> <p>For all other phone numbers; PhoneCountryCode would be the country code, PhoneDialPlanNumber would be the city code, PhoneLineNumber would be the telephone number, and PhoneExtension would be the extension number. An example of a Italian phone number follows; PhoneCountryCode element's value is "39", PhoneDialPlanNumber element's value is "02", the PhoneLineNumber element's value is "25088700" and the PhoneExtension element's value is "987". This information together logically represents the phone number 39-2-25088700 with the phone extension 987.</p>



## Rates and Service Selection

Table 2: Universal Rules

<b>Time</b>	The formatting used for time needs to be HHMM where HH is the hour and MM is the minute. The time is on a 24 hour clock, that is valid values for hours are 00 to 23 and the valid values for minutes are 00 to 59.
<b>Oversize and/or Large Package</b>	<p>Ground shipments will be declared OS1 when the dimensions are supplied and the length and girth combined exceeds 84" and is equal to or less than 108" and the package weighs less than 30 LBS.</p> <p>Ground shipments will be declared OS2 when dimensions are supplied and the length and girth combined exceeds 108" and is equal to or less than 130" and the package weighs less than 70LBS.</p> <p>Ground and air shipments will be declared OS3/LP when dimensions are supplied and the length and girth combined exceeds 130" and is equal to or less than 165" .</p> <p>For Ground shipments if the actual weight is less than 150 pounds, then the billable weight is 150 pounds. Air and 3 Day Select shipments will not be subject to a minimum billable weight.</p>

Table 3: Pickup Types

Code	Description
01	Daily Pickup
03	Customer Counter
06	One Time Pickup
07	On Call Air Pickup <sup>®</sup>
11	Suggested Retail Rates (UPS Store)
19	Letter Center
20	Air Service Center

Table 4: UPS Service Codes

Code	US Origin	European Union Origin	Canada Origin
01	UPS Next Day Air <sup>®</sup>	n/a	UPS Express
02	UPS 2nd Day Air <sup>®</sup>	n/a	UPS Expedited
03	UPS Ground	n/a	n/a
07	UPS Worldwide Express <sup>SM</sup>	UPS Express	UPS Worldwide Express <sup>SM</sup>
08	UPS Worldwide Expedited <sup>SM</sup>	n/a	UPS Worldwide Expedited <sup>SM</sup>
11	UPS Standard	UPS Standard	UPS Standard
12	UPS 3 Day Select <sup>®</sup>	n/a	UPS 3 Day Select <sup>®</sup>
13	UPS Next Day Air Saver <sup>®</sup>	n/a	UPS Express Saver
14	UPS Next Day Air <sup>®</sup> Early A.M. <sup>®</sup>	n/a	UPS Express Early A.M.



Table 4: UPS Service Codes

54	UPS Worldwide Express Plus <sup>SM</sup>	UPS Worldwide Express Plus <sup>SM</sup>	UPS Worldwide Express Plus <sup>SM</sup>
59	UPS 2nd Day Air A.M. <sup>®</sup>	n/a	n/a
64	n/a	n/a	n/a
65	n/a	UPS Express Saver	n/a

Code	Puerto Rico Origin	Mexico Origin	All Other Origins
01	UPS Next Day Air <sup>®</sup>	n/a	n/a
02	UPS 2nd Day Air <sup>®</sup>	n/a	n/a
03	UPS Ground	n/a	n/a
07	UPS Worldwide Express <sup>SM</sup>	UPS Express	UPS Worldwide Express <sup>SM</sup>
08	UPS Worldwide Expedited <sup>SM</sup>	UPS Expedited	UPS Worldwide Expedited <sup>SM</sup>
11	n/a	n/a	n/a
12	n/a	n/a	n/a
13	n/a	n/a	n/a
14	UPS Next Day Air <sup>®</sup> Early A.M. <sup>®</sup>	n/a	n/a
54	UPS Worldwide Express Plus <sup>SM</sup>	UPS Express Plus	UPS Worldwide Express Plus <sup>SM</sup>
59	n/a	n/a	n/a
64	n/a	n/a	n/a
65	n/a	n/a	n/a

Table 5: Package Type Codes

Code	Description
01	UPS letter/ UPS Express Envelope
02	Package
03	UPS Tube
04	UPS Pak
21	UPS Express Box
24	UPS 25 Kg Box <sup>®</sup>
25	UPS 10Kg Box <sup>®</sup>



## Rates and Service Selection

Table 6: Rate Chart Usage based on Pickup Type and Customer Classification

<b>Pickup Type</b>	<b>01</b> Customer Classification Code	<b>03</b> Customer Classification Code	<b>04</b> Customer Classification Code	<b>Default</b> without Customer Classification Code
01- Daily Pickup	Wholesale	Occasional	Retail	Wholesale
03- Customer Counter	Wholesale	Occasional	Retail	Retail
06- One Time Pickup	Wholesale	Occasional	Retail	Occasional
07- On Call Air	Wholesale	Occasional	Retail	Occasional
11- Suggested Retail Rates	Wholesale	Occasional	Retail	Error Returned (Code Required)
19- Letter Center	Wholesale	Occasional	Retail	Occasional
20- Air Service Center	Wholesale	Occasional	Retail	Occasional

- Use the 01 Customer Classification Code if you are billing to a UPS account and have a daily UPS pickup.
- Use the 03 Customer Classification Code if you are billing to a UPS account but do not have a daily pickup.
- Use the 04 Customer Classification Code if you are shipping from a customer counter or retail outlet.



Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
AL	Albania	USD		KG	0	70	Y
DZ	Algeria	DIN		KG	0	70	Y
AS	American Samoa	USD		KG	0	70	Y
AD	Andorra	ADP		KG	0	70	Y
AO	Angola	USD		KG	0	70	Y
AI	Anguilla	USD		KG	0	70	Y
AG	Antigua & Barbuda	USD		KG	0	70	Y
AR	Argentina	USD		KG	0	70	Y
AM	Armenia	USD		KG	0	70	Y
AW	Aruba	USD		KG	0	70	Y
AU	Australia	AUD		KG	0	70	Y
AT	Austria	ATS	Y	KG	0	70	Y
AZ	Azerbaijan	USD		KG	0	70	Y
PT	Azores	PTE	Y	KG	0	70	Y
BS	Bahamas	USD		LB	150	0	Y
BH	Bahrain	BHD		KG	0	70	Y
BD	Bangladesh	USD		KG	0	70	Y
BB	Barbados	USD		KG	0	70	Y
BY	Belarus	USD		KG	0	70	Y
BE	Belgium	BEF	Y	KG	0	70	Y
BZ	Belize	USD		KG	0	70	Y
BJ	Benin	XOF		KG	0	70	Y
BM	Bermuda	USD		KG	0	70	Y
BO	Bolivia	USD		KG	0	70	Y
AN	Bonaire	USD		KG	0	70	Y
BA	Bosnia	BAD		KG	0	70	Y
BW	Botswana	BWP		KG	0	70	Y
BR	Brazil	USD		KG	0	70	Y
VG	British Virgin Isles	USD		KG	0	70	Y
BN	Brunei	BND		KG	0	70	Y



## Rates and Service Selection

Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
BG	Bulgaria	USD		KG	0	70	Y
BF	Burkina Faso	XOF		KG	0	70	Y
BI	Burundi	BIF		KG	0	70	Y
KH	Cambodia	RIE		KG	0	70	Y
CM	Cameroon	XAF		KG	0	70	Y
CA	Canada	CAD		LB/ KG	150	68	Y
IC	Canary Islands	PES		KG	0	70	Y
CV	Cape Verde	CVE		KG	0	70	Y
KY	Cayman Islands	DOL		KG	0	70	Y
CF	Central African Rep	XAF		KG	0	70	Y
TD	Chad	XAF		KG	0	70	Y
CD	Channel Islands	GBP		KG	0	70	Y
CL	Chile	USD		KG	0	70	Y
CO	Colombia	USD		KG	0	70	Y
CK	Cook Islands	NZD		KG	0	70	Y
CR	Costa Rica	USD		KG	0	70	Y
CI	Cote d' Ivoire	XOF		KG	0	70	Y
HR	Croatia	HRK		KG	0	70	Y
CU	Cuba	PES		KG	0	70	
AN	Curacao	USD		KG	0	70	Y
CY	Cyprus	CYP		KG	0	70	Y
CZ	Czech Republic	CSK		KG	0	70	Y
ZR	Dem Rep of Congo	ZRN		KG	0	70	Y
DK	Denmark	DKK		KG	0	70	Y
DJ	Djibouti	DJF		KG	0	70	Y
DM	Dominica	USD		KG	0	70	Y
DO	Dominican Republic	USD		LB	150	0	Y
EC	Ecuador	USD		KG	0	70	Y
EG	Egypt	EGP		KG	0	70	Y
SV	El Salvador	USD		KG	0	70	Y



Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
GB	England	UKL		KG	0	70	Y
GQ	Equatorial Guinea	XAF		KG	0	70	Y
ER	Eritrea	ETB		KG	0	70	Y
EE	Estonia	USD		KG	0	70	Y
ET	Ethiopia	USD		KG	0	70	Y
DK	Faeroe Islands	DKK		KG	0	70	Y
FJ	Fiji	FJD		KG	0	70	Y
FI	Finland	FIM	Y	KG	0	70	Y
FR	France	FRF	Y	KG	0	70	Y
GF	French Guiana	USD		KG	0	70	Y
PF	French Polynesia	XPF		KG	0	70	Y
GA	Gabon	XAF		KG	0	70	Y
GM	Gambia	GMD		KG	0	70	Y
GE	Georgia	USD		KG	0	70	Y
DE	Germany	DEM	Y	KG	0	70	Y
GH	Ghana	USD		KG	0	70	Y
GI	Gibraltar	GIP		KG	0	70	Y
GR	Greece	GRD		KG	0	70	Y
DK	Greenland	DKK		KG	0	70	Y
GD	Grenada	USD		KG	0	70	Y
GP	Guadeloupe	USD		KG	0	70	Y
GU	Guam	USD		KG	0	70	Y
GT	Guatemala	USD		KG	0	70	Y
GN	Guinea	GNF		KG	0	70	Y
GW	Guinea-Bissau	XOF		KG	0	70	Y
GY	Guyana	USD		KG	0	70	Y
HT	Haiti	USD		KG	0	70	Y
NL	Holland	NLG	Y	KG	0	70	Y
HN	Honduras	USD		KG	0	70	Y
HK	Hong Kong	HKD		KG	0	70	Y
HU	Hungary	HUF		KG	0	70	Y



## Rates and Service Selection

Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
IS	Iceland	ISK		KG	0	70	Y
IN	India	INR		KG	0	70	Y
ID	Indonesia	USD		KG	0	70	Y
IR	Iran	IRR		KG	0	70	
IQ	Iraq	DIN		KG	0	70	
IL	Israel	USD		KG	0	70	Y
IT	Italy	ITL	Y	KG	0	70	Y
JM	Jamaica	USD		KG	0	70	Y
JP	Japan	JPY		KG	0	70	Y
JO	Jordan	JOD		KG	0	70	Y
KZ	Kazakhstan	USD		KG	0	70	Y
KE	Kenya	USD		KG	0	70	Y
KI	Kiribati	AUD		KG	0	70	Y
FM	Kosrae	USD		KG	0	70	Y
KW	Kuwait	KWD		KG	0	70	Y
KG	Kyrgyzstan	USD		KG	0	70	Y
LA	Laos	USD		KG	0	70	Y
LV	Latvia	USD		KG	0	70	Y
LB	Lebanon	USD		KG	0	70	Y
LS	Lesotho	LSL		KG	0	70	Y
LR	Liberia	LRD		KG	0	70	Y
LY	Libya	DIN		KG	0	70	
LI	Liechtenstein	CHF		KG	0	70	Y
LT	Lithuania	USD		KG	0	70	Y
LU	Luxembourg	LUF	Y	KG	0	70	Y
MO	Macau	MOP		KG	0	70	Y
MK	Macedonia(FY ROM)	USD		KG	0	70	Y
MG	Madagascar	MGF		KG	0	70	Y
PT	Madeira	PTE	Y	KG	0	70	Y
MW	Malawi	MWK		KG	0	70	Y
MY	Malaysia	MYR		KG	0	70	Y
MV	Maldives	MVR		KG	0	70	Y



Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
ML	Mali	XOF		KG	0	70	Y
MT	Malta	MTL		KG	0	70	Y
MH	Marshall Islands	USD		KG	0	70	Y
MQ	Martinique	USD		KG	0	70	Y
MR	Mauritania	USD		KG	0	70	Y
MU	Mauritius	USD		KG	0	70	Y
MX	Mexico	MXP		KG	0	70	Y
FM	Micronesia	USD		KG	0	70	Y
MD	Moldova	USD		KG	0	70	Y
MC	Monaco	FRF		KG	0	70	Y
MN	Mongolia	USD		KG	0	70	Y
MS	Montserrat	USD		KG	0	70	Y
MA	Morocco	MAD		KG	0	70	Y
MZ	Mozambique	MZM		KG	0	70	Y
MM	Myanmar	USD		KG	0	70	Y
MP	N. Mariana Islands	USD		KG	0	70	Y
NA	Namibia	ZAR		KG	0	70	Y
NP	Nepal	USD		KG	0	70	Y
NL	Netherlands	NLG	Y	KG	0	70	Y
AN	Netherlands Antilles	USD		KG	0	70	Y
NC	New Caledonia	XPF		KG	0	70	Y
NZ	New Zealand	NZD		KG	0	70	Y
NI	Nicaragua	USD		KG	0	70	Y
NE	Niger	XOF		KG	0	70	Y
NG	Nigeria	NGN		KG	0	70	Y
NF	Norfolk Island	AUD		KG	0	70	Y
KP	North Korea	KPW		KG	0	70	
GB	Northern Ireland	UKL		KG	0	70	Y
NO	Norway	NOK		KG	0	70	Y
OM	Oman	OMR		KG	0	70	Y
PK	Pakistan	USD		KG	0	70	Y



## Rates and Service Selection

Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
PW	Palau	USD		KG	0	70	Y
PA	Panama	USD		KG	0	70	Y
PG	Papua New Guinea	PGK		KG	0	70	Y
PY	Paraguay	USD		KG	0	70	Y
CN	Peoples Rep of China	USD		KG	0	70	Y
PE	Peru	USD		KG	0	70	Y
PH	Philippines	USD		KG	0	70	Y
PL	Poland	USD		KG	0	70	Y
FM	Ponape	USD		KG	0	70	Y
PT	Portugal	PTE	Y	KG	0	70	Y
PR	Puerto Rico	USD		LB	150	0	Y
QA	Qatar	QAR		KG	0	70	Y
CG	Republic of Congo	XAF		KG	0	70	Y
IE	Republic of Ireland	IEP	Y	KG	0	70	Y
YE	Republic of Yemen	YER		KG	0	70	Y
RE	Reunion	FRF		KG	0	70	Y
RO	Romania	USD		KG	0	70	Y
MP	Rota	USD		KG	0	70	Y
RU	Russia	USD		KG	0	70	Y
RW	Rwanda	RWF		KG	0	70	Y
AN	Saba	USD		KG	0	70	Y
MP	Saipan	USD		KG	0	70	Y
SM	San Marino	ITL		KG	0	70	Y
SA	Saudi Arabia	SAR		KG	0	70	Y
GB	Scotland	UKL		KG	0	70	Y
SN	Senegal	XOF		KG	0	70	Y
CS	Serbia and Montenegro	YUN		KG	0	70	
SC	Seychelles	SCR		KG	0	70	Y



Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
SL	Sierra Leone	SLL		KG	0	70	Y
SG	Singapore	SGD		KG	0	70	Y
SK	Slovakia	USD		KG	0	70	Y
SI	Slovenia	USD		KG	0	70	Y
SB	Solomon Islands	SBD		KG	0	70	Y
ZA	South Africa	ZAR		KG	0	70	Y
KR	South Korea	USD		KG	0	70	Y
ES	Spain	ESP	Y	KG	0	70	Y
LK	Sri Lanka	USD		KG	0	70	Y
VC	St. Vincent/ Grenadine	USD		KG	0	70	Y
AN	St. Barthelemy	USD		KG	0	70	Y
KN	St. Christopher	USD		KG	0	70	Y
VI	St. Croix	USD		KG	0	70	Y
AN	St. Eustatius	USD		KG	0	70	Y
VI	St. John	USD		KG	0	70	Y
KN	St. Kitts & Nevis	USD		KG	0	70	Y
LC	St. Lucia	USD		KG	0	70	Y
AN	St. Maarten	USD		KG	0	70	Y
GP	St. Martin	USD		KG	0	70	Y
VI	St. Thomas	USD		KG	0	70	Y
SD	Sudan	SDP		KG	0	70	
SR	Suriname	USD		KG	0	70	Y
SZ	Swaziland	SZL		KG	0	70	Y
SE	Sweden	SEK		KG	0	70	Y
CH	Switzerland	CHF		KG	0	70	Y
SY	Syria	SYP		KG	0	70	Y
PF	Tahiti	XPF		KG	0	70	Y
TW	Taiwan	XWD		KG	0	70	Y
TJ	Tajikistan	USD		KG	0	70	Y
TZ	Tanzania	XZS		KG	0	70	Y
TH	Thailand	XHB		KG	0	70	Y
MP	Tinian	USD		KG	0	70	Y



## Rates and Service Selection

Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
TG	Togo	XOF		KG	0	70	Y
TO	Tonga	XOP		KG	0	70	Y
VG	Tortola	USD		KG	0	70	Y
TT	Trinidad & Tobago	USD		KG	0	70	Y
FM	Truk	USD		KG	0	70	Y
TN	Tunisia	USD		KG	0	70	Y
TR	Turkey	USD		KG	0	70	Y
TM	Turkmenistan	USD		KG	0	70	Y
TC	Turks & Caicos Isles	USD		KG	0	70	Y
TV	Tuvalu	AUD		KG	0	70	Y
UG	Uganda	UGS		KG	0	70	Y
UA	Ukraine	USD		KG	0	70	Y
VC	Union Island	USD		KG	0	70	Y
AE	United Arab Emirates	AED		KG	0	70	Y
GB	United Kingdom	UKL		KG	0	70	Y
US	United States	USD		LB	150	0	Y
UY	Uruguay	USD		KG	0	70	Y
VI	US Virgin Islands	USD		KG	0	70	Y
UZ	Uzbekistan	USD		KG	0	70	Y
VU	Vanuatu	VUV		KG	0	70	Y
VA	Vatican City State	IXL		KG	0	70	Y
VE	Venezuela	USD		KG	0	70	Y
VN	Vietnam	USD		KG	0	70	Y
VG	Virgin Gorda	USD		KG	0	70	Y
WK	Wake Island	USD		KG	0	70	Y
GB	Wales	UKL		KG	0	70	Y
WF	Wallis & Futuna Isle	XPF		KG	0	70	Y
WS	Western Samoa	WSX		KG	0	70	Y



Table 7: Country Information as Supported by Rates and Service Selection

Country Code	Country Name	UPS Currency Code	Euro Allowed	Unit	Max Weight	Max Weight Metric	UPS Delivery
FM	Yap	USD		KG	0	70	Y
ZM	Zambia	ZMK		KG	0	70	Y
ZW	Zimbabwe	USD		KG	0	70	Y



## Rates and Service Selection

Table 8: Country Information

Country Name	Country Code	Postal Code Req'd
Albania	AL	No
Algeria	DZ	No
Andorra	AD	No
Angola	AO	No
Anguilla	AI	No
Antigua & Barbuda	AG	No
Argentina	AR	Yes
Armenia	AM	Yes
Aruba	AW	No
Australia	AU	Yes
Austria (EU Member)	AT	Yes
Azerbaijan	AZ	Yes
Bahamas	BS	No
Bahrain	BH	No
Bangladesh	BD	Yes
Barbados	BB	No
Belarus	BY	Yes
Belgium (EU Member)	BE	Yes
Belize	BZ	No
Benin	BJ	No
Bermuda	BM	No
Bolivia	BO	No
Bosnia	BA	Yes
Botswana	BW	No
Brazil	BR	Yes
British Virgin Isles	VG	No
Brunei	BN	No
Bulgaria	BG	Yes
Burkina Faso	BF	No
Burundi	BI	No
Cambodia	KH	No
Cameroon	CM	No



Table 8: Country Information

Country Name	Country Code	Postal Code Req'd
Canada	CA	Yes
Cape Verde	CV	No
Cayman Islands	KY	No
Central African Rep	CF	No
Chad	TD	No
Channel Islands	CD	Yes
Chile	CL	No
China	CN	Yes
Colombia	CO	No
Congo	CG	No
Cook Islands	CK	No
Costa Rica	CR	No
Croatia	HR	Yes
Cyprus (EU Member)	CY	No
Czech Republic (EU Member)	CZ	Yes
Dem Rep of Congo (Zaire)	ZR	No
Denmark (EU Member)	DK	Yes
Djibouti	DJ	No
Dominica	DM	No
Dominican Republic	DO	No
Ecuador	EC	No
Egypt	EG	No
El Salvador	SV	No
Equatorial Guinea	GQ	No
Eritrea	ER	No
Estonia (EU Member)	EE	Yes
Ethiopia	ET	No
Faeroe Islands	FO	Yes
Fiji	FJ	No
Finland (EU Member)	FI	Yes
France (EU Member)	FR	Yes
French Guiana	GF	No



## Rates and Service Selection

Table 8: Country Information

Country Name	Country Code	Postal Code Req'd
French Polynesia/Tahiti	PF	No
Gabon	GA	No
Gambia	GM	No
Georgia	GE	Yes
Germany (EU Member)	DE	Yes
Ghana	GH	No
Gibraltar	GI	No
Greece (EU Member)	GR	Yes
Greenland	GL	Yes
Grenada	GD	No
Guadeloupe	GP	No
Guam	GU	No
Guatemala	GT	No
Guinea	GN	No
Guinea-Bissau	GW	No
Guyana	GY	No
Haiti	HT	No
Honduras	HN	No
Hong Kong	HK	No
Hungary (EU Member)	HU	Yes
Iceland	IS	Yes
India	IN	Yes
Indonesia	ID	Yes
Iran	IR	No
Iraq	IQ	No
Ireland (EU Member)	IE	No
Israel	IL	Yes
Italy (EU Member)	IT	Yes
Ivory Coast	CI	No
Jamaica	JM	No
Japan	JP	Yes
Jordan	JO	No
Kazakhstan	KZ	Yes



Table 8: Country Information

Country Name	Country Code	Postal Code Req'd
Kenya	KE	No
Kiribati	KI	No
Kuwait	KW	No
Kyrgyzstan	KG	Yes
Laos	LA	No
Latvia (EU Member)	LV	Yes
Lebanon	LB	No
Lesotho	LS	No
Liberia	LR	No
Libya	LY	No
Liechtenstein	LI	Yes
Lithuania (EU Member)	LT	Yes
Luxembourg (EU Member)	LU	Yes
Macau	MO	No
Macedonia(FYROM)	MK	Yes
Madagascar	MG	No
Malawi	MW	No
Malaysia	MY	Yes
Maldives	MV	No
Mali	ML	No
Malta (EU Member)	MT	No
Marshall Islands	MH	Yes
Martinique	MQ	Yes
Mauritania	MR	No
Mauritius	MU	No
Mexico	MX	Yes
Micronesia	FM	Yes
Moldova	MD	Yes
Monaco (EU Member)	MC	Yes
Mongolia	MN	Yes
Montserrat	MS	No
Morocco	MA	No
Mozambique	MZ	No



## Rates and Service Selection

Table 8: Country Information

Country Name	Country Code	Postal Code Req'd
Myanmar	MM	No
N. Mariana Islands	MP	No
Namibia	NA	No
Nepal	NP	Yes
Netherlands (EU Member)	NL	Yes
Netherlands Antilles	AN	No
New Caledonia	NC	No
New Zealand	NZ	Yes
Nicaragua	NI	No
Niger	NE	No
Nigeria	NG	No
Norfolk Island	NF	No
Oman	OM	No
Pakistan	PK	Yes
Palau	PW	Yes
Panama	PA	No
Papua New Guinea	PG	No
Paraguay	PY	No
Peru	PE	No
Philippines	PH	Yes
Poland (EU Member)	PL	Yes
Portugal (EU Member)	PT	Yes
Puerto Rico	PR	Yes
Qatar	QA	No
Reunion Is.	RE	Yes
Romania	RO	Yes
Russia	RU	Yes
Rwanda	RW	No
Samoa (Amer.)	AS	No
Samoa (Western)	WS	No
San Marino	SM	Yes
Saudi Arabia	SA	Yes
Senegal	SN	No



Table 8: Country Information

Country Name	Country Code	Postal Code Req'd
Serbia and Montenegro	CS	Yes
Seychelles	SC	No
Sierra Leone	SL	No
Singapore	SG	Yes
Slovakia (EU Member)	SK	Yes
Slovenia (EU Member)	SI	Yes
Solomon Islands	SB	No
South Africa	ZA	Yes
South Korea	KR	Yes
Spain (EU Member)	ES	Yes
Sri Lanka	LK	Yes
St. Christopher	KN	No
St. Lucia	LC	No
St. Vincent/Grenadines	VC	No
Sudan	SD	No
Suriname	SR	No
Swaziland	SZ	No
Sweden (EU Member)	SE	Yes
Syria	SY	No
Taiwan	TW	Yes
Tajikistan	TJ	Yes
Tanzania	TZ	No
Thailand	TH	Yes
Togo	TG	No
Tonga	TO	No
Trinidad & Tobago	TT	No
Tunisia	TN	No
Turkey	TR	Yes
Turkmenistan	TM	Yes
Turks & Caicos Is.	TC	No
Tuvalu	TV	No
Uganda	UG	No
Ukraine	UA	Yes



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Table 8: Country Information

Country Name	Country Code	Postal Code Req'd
United Arab Emirates	AE	No
United Kingdom (EU Member)	GB	Yes
United States	US	Yes
Uruguay	UY	Yes
US Virgin Islands	VI	Yes
Uzbekistan	UZ	Yes
Vanuatu	VU	No
Venezuela	VE	No
Vietnam	VN	Yes
Wake Island	WK	No
Wallis & Futuna Isle	WF	No
Yemen	YE	No
Zambia	ZM	No
Zimbabwe	ZW	No



Table 9: Maximum COD Values by Destination Country for EU-to-EU Shipments

Country Name	Currency Names	Currency Code	Max Weight	Max Weight Metric
Austria	Euro	EUR	50000 EUR	5000 EUR
Belgium	Euro	EUR	50000 EUR	5000 EUR
Cyprus	Cypriot Pound	CYP	30000 CYP	3000 CYP
Czech Republic	Czech Koruna	CZK	1600000 CZK	160000 CZK
Denmark	Krone	DKK	372500 DKK	37250 DKK
Estonia	Estonian Kroon	EEK	782500 EEK	78250 EEK
Finland	Euro	EUR	50000 EUR	5000 EUR
France	Euro	EUR	7500 EUR	750 EUR
Germany	Euro	EUR		
Great Britain	Great Britain Pound	GBP	35000 GBP	3500 GBP
Greece	Euro	EUR	50000 EUR	5000 EUR
Hungary	Hungarian Forint	HUF	1236000 HUF	123600 HUF
Ireland	Euro	EUR	50000 EUR	5000 EUR
Italy	Euro	EUR	50000 EUR	5000 EUR
Latvia	Latvian Lats	LVL	33600 LVL	3360 LVL
Lithuania	Lithuanian Litas	LTL	172750 LTL	17275 LTL
Luxembourg	Euro	EUR	50000 EUR	5000 EUR
Malta	Maltese Lira	MTL	21750 MTL	2175 MTL
Netherlands	Euro	EUR	50000 EUR	5000 EUR
Norway	Norwegian Kroner	NOK	412500 NOK	41250 NPK
Poland	Polish New Zloty	PLN	215500 PLN	21550 PLN
Portugal	Euro	EUR	50000 EUR	5000 EUR
Slovakia	Slovak Koruna	SKK	2001750 SKK	200175 SKK
Slovenia	Slovenian Tolar	SIT	12187000 SIT	1218700 SIT
Spain	Euro	EUR	50000 EUR	5000 EUR



## Rates and Service Selection

Table 9: Maximum COD Values by Destination Country for EU-to-EU Shipments

Country Name	Currency Names	Currency Code	Max Weight	Max Weight Metric
Sweden	Swedish Krona	SEK	455000 SEK	45500 SEK
Switzerland	Switzerland	Swiss Franc	77500 CHF	7750 CHF
Liechtenstein (parent country is Switzerland)	Euro Swiss Franc	EUR CHF	50000 EUR 77500 CHF	5000 EUR 7750 CHF
Vatican City (parent country is Italy)	Euro	EUR	50000 EUR	5000 EUR
Monaco (parent country is France)	Euro	EUR	7500 EUR	750 EUR
San Marino	Euro	EUR	50000 EUR	5000 EUR
Jersey (parent country is Great Britain)	Euro	EUR GBP	50000 EUR	5000 EUR
Guernsey (parent country is Great Britain)	Euro	EUR GBP	50000 EUR	5000 EUR
Andorra	Not allowed	Not allowed	Not allowed	Not allowed
Aland Island (parent country is Finland)	Euro	EUR	50000 EUR	5000 EUR
Helgoland (parent country is Germany)	Euro	EUR	50000 EUR	5000 EUR
Busingen (parent country is Germany)	Euro	EUR	50000 EUR	5000 EUR
Mount Athos (parent country is Greece)	Euro	EUR	50000 EUR	5000 EUR
Livigno (parent country is Italy)	Euro	EUR	50000 EUR	5000 EUR
Campione (parent country is Italy)	Euro	EUR	50000 EUR	5000 EUR
Lake Lugano (parent country is Italy)	Euro	EUR	50000 EUR	5000 EUR
Azores (parent country is Portugal)	Euro	EUR	50000 EUR	5000 EUR
Madeira (parent country is Portugal)	Euro	EUR	50000 EUR	5000 EUR
Canary Islands (parent country is Spain)	Euro	EUR	50000 EUR	5000 EUR
Ceuta (parent country is Spain)	Euro	EUR	50000 EUR	5000 EUR



Table 9: Maximum COD Values by Destination Country for EU-to-EU Shipments

Country Name	Currency Names	Currency Code	Max Weight	Max Weight Metric
Melilla (parent country is Spain)	Euro	EUR	50000 EUR	5000 EUR



## Rates and Service Selection

Table 10: U.S. State Codes

<b>State Code</b>	<b>State Name</b>
AL	Alabama
AK	Alaska
AZ	Arizona
AR	Arkansas
CA	California
CO	Colorado
CT	Connecticut
DE	Delaware
DC	District of Columbia
FL	Florida
GA	Georgia
HI	Hawaii
ID	Idaho
IL	Illinois
IN	Indiana
IA	Iowa
KS	Kansas
KY	Kentucky
LA	Louisiana
ME	Maine
MD	Maryland
MA	Massachusetts
MI	Michigan
MN	Minnesota
MS	Mississippi
MO	Missouri
MT	Montana
NE	Nebraska
NV	Nevada
NH	New Hampshire
NJ	New Jersey
NM	New Mexico
NY	New York



Table 10: U.S. State Codes

<b>State Code</b>	<b>State Name</b>
NC	North Carolina
ND	North Dakota
OH	Ohio
OK	Oklahoma
OR	Oregon
PA	Pennsylvania
RI	Rhode Island
SC	South Carolina
SD	South Dakota
TN	Tennessee
TX	Texas
UT	Utah
VT	Vermont
VA	Virginia
WA	Washington
WV	West Virginia
WI	Wisconsin
WY	Wyoming



## Rates and Service Selection

Table 11: Canadian Province Codes

<b>Province Code</b>	<b>Province Name</b>
<b>AB</b>	<b>Alberta</b>
<b>BC</b>	<b>British Columbia</b>
<b>MB</b>	<b>Manitoba</b>
<b>NB</b>	<b>New Brunswick</b>
<b>NL</b>	<b>Newfoundland</b>
<b>NT</b>	<b>Northwest Territories</b>
<b>NS</b>	<b>Nova Scotia</b>
<b>NU</b>	<b>Nunavut</b>
<b>ON</b>	<b>Ontario</b>
<b>PE</b>	<b>Prince Edward Island</b>
<b>QC</b>	<b>Quebec</b>
<b>SK</b>	<b>Saskatchewan</b>
<b>YT</b>	<b>Yukon</b>



## Appendix D

### Frequently Asked Questions

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#### General Questions

**Q. What are UPS OnLine Tools?**

**A.** UPS OnLine Tools is a set of UPS server applications that present an Application Programming Interface based on the secured Hypertext Transport Protocol (HTTP) and eXtensible Markup Language (XML). UPS OnLine Tools provide an easy method for integrating UPS shipping services into your e-commerce applications. The tools return data in a convenient eXtensible Markup Language (XML) format that can be easily processed by client-side applications.

UPS OnLine Tools acts as the server side of an Internet client/server application. An e-commerce application using UPS OnLine Tools acts as the client, even though the application may be simultaneously acting as a server to its end-users' web browsers.

**Q. Do I need to install UPS OnLine Tools on my system?**

**A.** No. All functionality is implemented on the remote UPS OnLine Tools server maintained by UPS.

**Q. Is there a graphical user interface?**

**A.** No, you use UPS OnLine Tools by exchanging XML documents between your e-commerce applications and UPS Internet server.

**Q. How do my applications communicate with UPS OnLine Tools?**

**A.** Applications connected to the Internet can connect directly to remote UPS OnLine Tools by opening either a secure TCP/IP socket or secure URL connection. Applications send request data to remote UPS OnLine Tools by writing data to the TCP/IP socket or URL connection. The request data must be formatted as a valid XML request message and adhere to the HTTP protocol. Response data from UPS OnLine Tools by reading data from the same TCP Applications receive TCP/IP socket or URL connection.

**Q. What user development effort is required?**

**A.** To integrate remote UPS OnLine Tools into your e-commerce applications, you must develop custom code that adapts your application's business logic and data to UPS OnLine Tools. You can use any programming language that supports HTTP communication across Internet socket and secure connections, such as Java, Visual Basic, or C++.

You must know how to program URL or socket connections. There are several ways you can do this. Which method you choose will depend on your application platform and programming language. For example, if you program in Java on any platform, you could use the URLConnection Class, which is part of the Java Software Development Kit.



## Rates and Service Selection

You must obtain, or write, a secure socket implementation that supports the SSL standard for secure communications.

You must know how to encode and decode XML documents. To program XML documents, you'll probably want to use an XML parser, which provides an Application Programming Interface (API) for manipulating XML documents. There are several XML parsers available as freeware, as well as commercial software products.

You must know how to decode Base64-encoded data. UPS OnLine Tools embeds binary data within XML documents, thus requiring the data to be decoded.

You must establish a connection to the Internet from the computer that runs your e-commerce applications. You must establish Internet access with your own Internet Service Provider.

**Q.** How does UPS OnLine Tools return data?

**A.** UPS OnLine Tools returns data in an eXtensible Markup Language (XML) format that can be easily parsed by client-side applications. Document Type Definitions (DTDs) may be used to validate the syntax of XML documents.

**Q.** When attempting to connect to the UPS OnLine Tools server, I receive an error stating “wrong Content-Type”. What content-type does the server respond to?

**A.** The UPS OnLine Tools Server does not require a content-type to be used. However, through our testing and platform integration we have discovered that applications running under WindowsNT they must set the content-type to application/x-www-form-urlencoded.

**Q.** How does UPS OnLine Tools handle data security?

**A.** During shipping transactions, sensitive billing-related data is transferred back and forth across the public Internet. To ensure that you and UPS are the only parties able to decode a transmission, UPS OnLine Tools uses secure HTTP. HTTPS is accomplished by using the HTTP protocol using a Secure Socket Layer (SSL) socket. You must obtain an SSL package that supports the RSA encryption algorithm in order to communicate with the UPS OnLine Tools server.

**Q.** How do I get sample code and documentation?

**A.** Currently, UPS offers sample code in Java. It is available for download as part of the “How To” files on your country’s UPS E-Business web site.



**Q.** I operate a mail order business that receives orders over the Internet and the telephone. How can UPS OnLine Tools help me?

**A.** You can integrate UPS OnLine Tools into your existing order-entry system. Let's suppose you have software installed that accepts order, shipping, and payment information. You can use UPS OnLine Tools to validate address information, validate shipping service information and options, and to ship packages. You can also use UPS OnLine Tools to cancel orders, and to track shipments and verify delivery. Another use of UPS OnLine Tools would be in a warehouse fulfillment business. Suppose retail outlets use your warehouse to provide product and shipping to end customers. You can integrate UPS OnLine Tools into your order-entry system to upload package detail to UPS and to track shipments.

**Q.** How will I know when updates to the Tools are available?

**A.** As your e-commerce site continues to evolve, UPS OnLine Tools will evolve, too, offering more features and service benefits for your online customers. Once you have registered to use UPS OnLine Tools, UPS will notify you by e-mail of all updates and changes to the tools. It is essential that an accurate E-mail address for your company be maintained. You should update your profile when changes occur or responsibilities for the Tools shift within your company. You may also return to the UPS e-commerce web site to receive the latest updated information about UPS OnLine Tools.

**Q.** What are some of the reasons the license agreements are important to both the programmer and the business manager?

**A.** The license agreements define the necessary business obligations of both UPS and the Licensee. Just some of the reasons your entire team should be knowledgeable of the licensing requirements include:

- The license agreements have requirements that impact how programmers use and display information (e.g., regarding appropriate use of data and logos).
- The license agreements are different depending on how you use the UPS OnLine Tools (e.g., as an end-user or third-party developer).

#### Usage Requirements

As part of the UPS OnLine Tools legal agreements, users of the Tools have certain obligations that are spelled out within the Tools 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 the usage requirements of the Tools legal agreement accepted by your company. Reference your OnLine Tools legal agreement for complete details of both parties' obligations. The following highlights a few of these usage requirements.

#### Branding Requirements

UPS should receive attribution and branding in all applications (including web sites and software applications) that use the OnLine Tools. No End 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 Tool in a way that misrepresents the information or the functionality of the tool.

#### Tracking Authorization

End User must conspicuously display the following language, or such other language provided by UPS from time to time, in reasonable proximity to the tracking input and output information screens:

“NOTICE: UPS authorizes you to use the UPS tracking systems solely to track shipments tendered by or



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for you to UPS for delivery and for no other purpose. Any other use of UPS tracking systems and information is strictly prohibited.” This text may be updated from time to time by UPS.

### Rate Information

If End User or any other party charges, displays or advertises rates which are different from the UPS published rates returned by the Rates & Service Selection Tool or as otherwise published by UPS for use or display by the Application, then the following language, or other such language provided by UPS from time to time, must be conspicuously displayed in reasonable proximity to such rates: “These fees do not necessarily represent UPS published rates and may include handling charges levied by [End User].”

### XML Questions

**Q.** I read in the Developer's Guide that XML does not allow certain characters. Where can I get a list of those characters?

**A.** For a comprehensive treatment of XML 1.0, refer to the following web site: <http://www.w3.org/TR/1998/REC-xml-19980210>.

### Service Response Questions

**Q.**The UPS OnLine Tools Server is not responding. Why is this happening?

**A.**There may be several reasons why the UPS OnLine Tools Server is not responding:

1. The URL (Universal Resource Locator) may not be correct.
2. Your firewall or proxy server is not allowing access to the service.
3. Your DNS (Domain Name Server) server may have the wrong IP address/Server name.
4. The server may be temporarily unavailable.

**Q.** How do I determine if the UPS OnLine Tools Server is unavailable?

**A.** To determine if the XML OnLine Tools Server is available, follow these steps:

1. Use a browser to perform on the server < hostname> , for example:

`https://www.ups.com/ups.app/xml/<toolname>`

2. If the server is available, the response will state the following:

Service Name: <toolname>

Remote User: null

Server Port: 80

Server Name: /www.ups.com

Server Path: /ups.app

**Q.** I am sending XML request documents to the UPS OnLine Tools Server but there is no response. Why is there no response?

**A.** If your XML request document is being sent to the correct service URL (Universal Resource Locator), you should receive a response in the form of an XML document. If you have ensured that your software is making connection and passing authentication, but still no response, contact technical support.



**Q. I am getting the following HTML response when I submit an XML Request document:**

```
<HTML><HEAD><TITLE>Content wrong type.</TITLE></HEAD>  
<BODY><H1>Content wrong type.</H1>
```

**Your browser sent a query this server could not understand.**

```
</BODY></HTML>
```

**How can I resolve this problem?**

**A. Though XML standards do not recommend that data be transmitted using a content type of “application/x-www-form-urlencoded,” experience has shown that this is the only content type that will allow Microsoft's wininet.dll to communicate properly. If not using this .dll, the content type should always be set to “application/xml.”**



## Appendix E

### Change Summary

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If you downloaded this document, access your country's UPS E-Business web site for further details on updates in this document, otherwise, contact your UPS Electronic Commerce Coordinator for further details on updates in this document.

#### Volume 1 Number 2

The changes applied to this release of this document are for clarifications and corrections in the Rates & Service Selection Programming Information and Customer Integration Environment chapters. There has not been any change of functionality or upgrade to the initial release of the XML Rates & Service Selection tool.

#### Volume 1 Number 3

New examples of XML requests and responses have been added in the Rates & Service Selection Programming Information chapter. A new table has been added to Appendix C titled 'Countries that Support UPS Rates & Service Selection.' The changes applied to this release of this document are for clarifications and corrections only. There has not been any change of functionality or upgrade to the initial release of the XML Rates & Service Selection tool.

#### Volume 1 Number 4

A dedicated Customer Integration Environment is provided for all UPS Online Tools. The Customer Integration Environment chapter has been rewritten to reflect all the changes for testing your applications with UPS servers. Other changes applied to the release of this document are for clarifications and corrections only. There has not been any change of functionality or upgrade to the initial release of the UPS Rates & Service Selection Tool.

#### Volume 1 Number 5

The changes applied to this release of this document are for clarifications and corrections in several chapters. There has not been any change of functionality or upgrade to the initial release of the UPS Rates & Service Selection tool.

#### Volume 1 Number 6

The Customer Integration Environment chapter has been updated with a caution about using the UPS Quick Cost Calculator to verify rates. Other changes applied to this release of this document are for clarifications and corrections to the Rates & Service Selection Request Input and Response Output tables in the Programming Information chapter. There has not been any change of functionality or upgrade to the initial release of the UPS Rates & Service Selection tool.

#### Volume 1 Number 7

Changes applied to this release of the document are for clarifications about Service Option Charges in the Programming Information chapter. There is no support for Hazardous Materials (Hazmat) in the UPS Rates & Service Selection tool. There has not been any upgrade to the initial release of the UPS Rates & Service Selection tool.



## Volume 2 Number 1

Changes applied to this release of the document are for clarifications about Service Option Charges for international shipments in the Programming Information chapter. There has not been any upgrade to the initial release of the UPS Rates & Service Selection tool.

## Volume 2 Number 2

This version includes license agreement information that is relevant to this UPS OnLine Tool.

## Volume 3 Number 1

Updated the Pickup Types and Service Codes in Appendix C.

## Volume 3 Number 2

Updated the XPath elements and Error Codes tables in the Rates and Service Selection Programming chapter.

## Volume 4 Number 1

Updated the XPath elements and Error codes to include functionality changes for the January 2004 Enterprise Release.

## Volume 4 Number 2

Updated the XPath elements and Error codes to include functionality changes for the July 2004 Enterprise Release.

## Volume 4 Number 3

This version includes the updates representing no further support of package type “00” and the Implementation of new document template.

## Volume 4 Number 4

This version includes the updates to the UPS Service Codes Table (Appendix C) to remove UPS Express Saver as a US Origin service and UPS Express NA1 as a EU Origin service.

## Volume 5 Number 1

This version includes the following January 2005 Software Release updates:

- 1) Added new error codes 111121, 111126, 111217 and 111502 to Error Code table. (see pages 81 to 108)
- 2) Added new Maximum COD Values by Destination Country for EU-to-EU Shipments table.

Note: The amounts in this table are subject to change based upon the monetary conversion rates. (see page 117)

- 3) Updated the InsuredValueCharge element description to read, “The charge for declared values in excess of \$100”. (see page 130)
- 4) Updated the PackageServiceOptions element description to replace “Insurance” with “Insured/ Declared”. (see page 132)
- 5) Updated the ShipmentInsuredValue element description to include, “...of obtaining Declared Value protection”. (see page 136)



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### Volume 5 Number 2

This version includes the following February 2005 Software Maintenance Release updates:

- 1) Removed parent tags RatingServiceSelectionRequest/Shipment/ShipmentServiceOptions/CallTagARS and RatingServiceSelectionRequest/Shipment/ShipmentServiceOptions/ShipmentNotification , and duplicate tag RatingServiceSelectionRequest/Shipment/HandlingCharge/FlatRate.

- 2) Changed the UPS Service Codes table to reflect “UPS Expedited” as service code ‘2’ for a Canadian Origin and only “UPS Worldwide Expedited” as service code ‘8’ for a Canadian Origin. (see page 87).

### Volume 5 Number 3

This version includes the following July 2005 Software Release updates:

- 1) Changed tag name from RatingServiceSelectionRequest/Shipment/Package/AdditionalHandlingIndicator to RatingServiceSelectionRequest/Shipment/Package/AdditionalHandling. (see page 44)

### Volume 5 Number 4

This version includes the following updates for the August 2005 Maintenance Release:

- 1) Added text for GTE Cybertrust certificate and advice against the use of hard coded IP addresses.

### Volume 6 Number 1

This version includes the following updates for the January 2006 Software Release:

- 1) Updated Universal Rules. (see page 90)
- 2) Updated to reference OS3/LP where OS3 is referenced. (see page 91)
- 3) Provide support for Negotiated Rates. (see UPS Rates & Service Selection section - page 35 )
- 4) Change the country name from Macedonia to Macedonia(FYROM) in all places in the document. (see table 7 and table 8)
- 5) Change the rounding rules for dimension values (see page 90, table 2)

### Volume 6 Number 2

- 1) Updated RatingServiceSelectionRequest/Shipment/Shipper/ShipperNumber description to include the following text:

A shipper number is required when requesting to receive the negotiated rates. The shipper number is optional when requesting to receive the published rates.

(see page 42)

- 2) Changed the Required/Cardinality for the RatingServiceSelectionRequest/Shipment/Shipper/ShipperNumber from No/Zero or One to Cond/Zero or One.(see page 42)

### Volume 6 Number 3

This version includes the following updates for the July 2006 Software Release:



- 1) Changed reference of Newfoundland from “NF” to “NL”.
- 2) General document corrections.
- 3) Removed HTTP 1.0 references.



UPS ONLINE TOOLS

# Bibliography



# Bibliography

## Books

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A few books that we have found especially useful include:

Enner, L., Chuvan, C., Fremante, P., Routray, R., & Ruuskanen, J. (2000). *The XML Files: Using XML and XSL with IBM Websphere 3.0*.

DuCharme, B. (1999). *XML: The Annotated Specification*. Prentice Hall PTR. Upper Saddle River, NJ.

Laughlin, B. (2000). *Java and XML*. O'Reilly. Sebastopol, CA.

St. Laurant, S. (2000). *Building XML Applications*. McGraw Hill. New York.

St. Laurant, S. (2000). *XML Elements of Style*. McGraw-Hill. New York.

## On the Web

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Here are some quick reference web sites to aid in your gaining the knowledge of standards and protocol required for utilizing and effectively accessing the UPS OnLine Tools.

- Java Documentation: Sun's Javasoftware at <http://www.javasoft.com> is the reference for the Java Development Kit.
- XML Specifications: The World Wide Web Consortium at <http://www.w3.org> has the information for XML and HTTP standard specifications.
- IBM's XML for Java: IBM's alphaWorks at <http://alphaworks.ibm.com> is the source for XML4J, the XML parser used in this guide's example code, as well as numerous other XML and Java links, articles, and tools.
- HTTP version 1.0 specification: <http://www.w3.org/Protocols/rfc1945.txt>
- Web naming and addressing: <http://www.w3.org/Addressing>.
- UPS Service Guide: <http://www.ups.com/using/svc-index.html>. The UPS Service Guide will help you understand UPS business practices and terms.

Here are some other web sites that you may find useful for detailed information on XML.

- Simon St. Laurent, author of articles on current XML issues and two of the above books, has an informative site with white papers. <http://www.simonstl.com/>
- XML.ORG has ambitions of being a clearinghouse for schemas. These schemas are interesting from a design standpoint and the links are good for learning more about XML. <http://www.xml.org/xml-dev/index.shtml>



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- These sites are good sources for developers on the latest happenings in the XML world as well as the latest tools and techniques. They also publish a weekly e-mail newsletter. This site is for the truly sophisticated XML developer. <http://www.xmlhack.com/>
- XML Info aims to be an exhaustive set of links and information on XML. This is a good place to start a search for an exotic subject. <http://www.xmlinfo.com/>

