



# United States Postal Service® Web Tool Kit User's Guide



**A Technical Guide to**

***Online Express Mail Label***

**Application Programming Interface**



**Before implementing this API, the *Administrative Guide for Application Programming Interfaces* must be read.**

**Version 1.0 (12/02/02)**

## To Our Customers

In the e-mail that accompanied this guide you received a password and user ID that will allow you to begin sending calls to the “test server” when you are ready. Any additional documentation or contact with you will be made through the contact person indicated on the registration form.

If you require technical support, contact the USPS Internet Customer Care Center (ICCC). This office is staffed from 7:00AM to 11:00PM EST.

E-mail: [icustomer@usps.com](mailto:icustomer@usps.com)

Telephone: 1-800-344-7779 (7:00AM to 11:00PM EST)

## USPS Customer Commitment

The United States Postal Service fully understands the importance of providing information and service anytime day or night to your Internet and e-commerce customers. For that reason, the USPS is committed to providing 24 x 7 service from our API servers, 365 days a year.

Thank you for helping the U.S. Postal Service provide new Internet services to our shipping customers.

Internet Shipping Solutions Team  
U.S. Postal Service  
475 L'Enfant Plaza, SW  
Washington, DC 20260-2464

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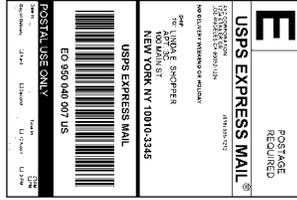
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## Introduction to the Online Express Mail Label API



Instructions: Ensure that the Express Mail label is securely affixed to the shipping container. DO NOT place tape over any printed areas of the shipping label.

NOTE: \* If Mailing and Return Buttons Point on Top: Your Records. \* If You Are Mailing Items to the Post Office, Present This Record for a Proof of Mailing Receipt.

EXPRESS MAIL CUSTOMER Online Record		DO NOT MAIL
ORIGIN (POSTAL USE ONLY)	DESTINATION (POSTAL USE ONLY)	POSTAGE REQUIRED
01	01	\$ 18.95
CUSTOMER INFORMATION 3749 05 912 XYZ CORPORATION 1234 STABLE DR LOS ANGELES CA 90002-1234		EO 990 040 007 US LINDA E. SHOPPER APT. 2C 100 MAIN ST NEW YORK, NY 10010-3545
FOR PICKUP OR TRACKING CALL 1-800-222-8811 www.usps.com		

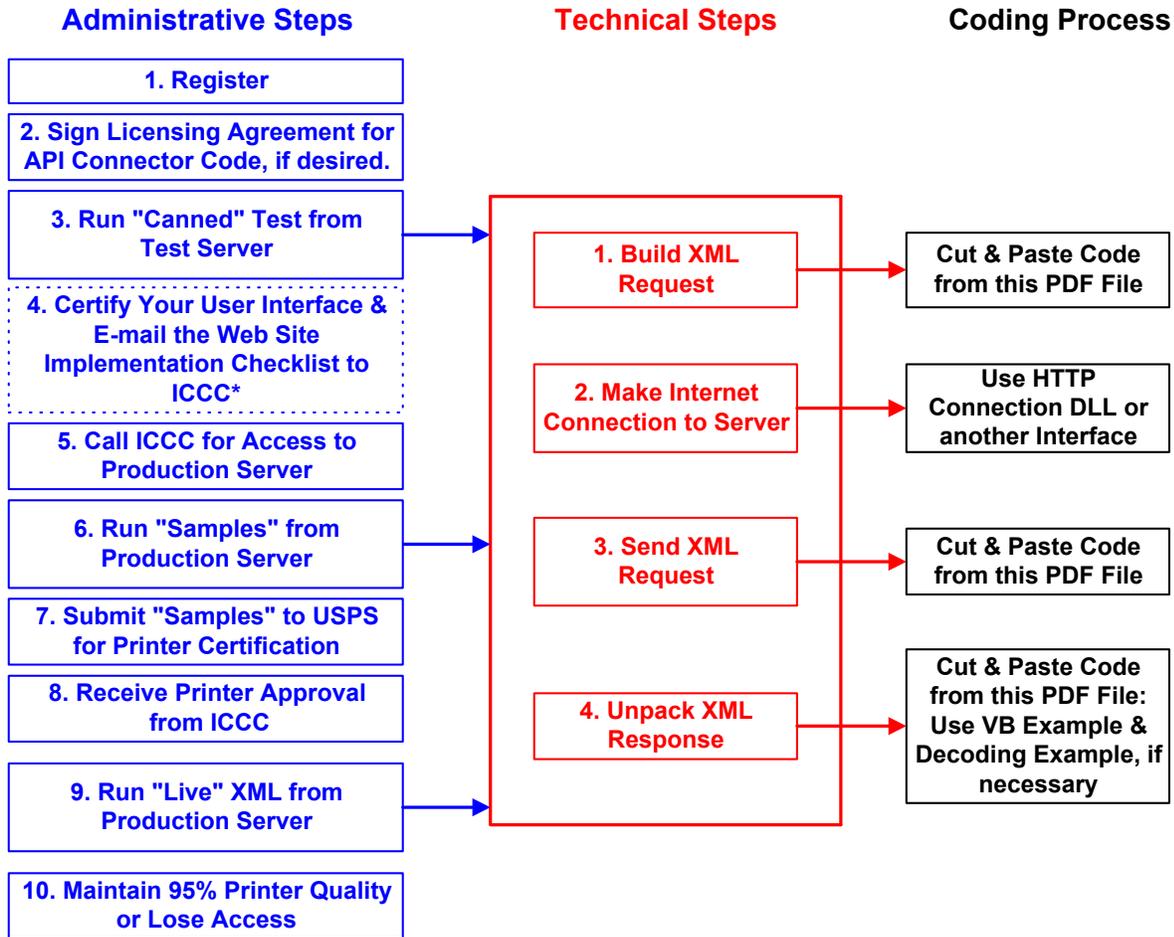
Express Mail is the U.S. Postal Service's fastest service, with next day delivery by 12 noon to most destinations. Express Mail is delivered 365 days a year, with no extra charge for Saturday, Sunday, or holiday delivery. Features include merchandise and document reconstruction, tracking and tracing, delivery to post office boxes and rural addresses, money-back guarantee, COD, return Customer Online Record service, and waiver of signature. Insurance is provided at no additional cost up to \$100. Additional merchandise insurance is available up to \$5,000. Pickup service is available for an additional fee, regardless of the number of pieces.

All packages must use an Express Mail label. This API allows you to generate a USPS Express Mail shipping label complete with addresses, barcode, and Customer Online Record.

In order to use this API, you must test against our test server and have your barcode label printer certified by the USPS before use. Refer to Administrative Step 5 in the *Administrative Guide for APIs*.

### Administrative Steps

As shown in the illustration below, implementing APIs requires a series of *Administrative Steps*. The *Administrative Guide for APIs*, also available at <http://www.uspswebtools.com/>, provides necessary information and procedures prior to installation. The illustration also shows the *Technical Steps* required to run XML transactions for the API to either the test server or the production server, as well as the *Coding Process* to be followed for each *Technical Step*. This document provides step-by-step instructions for both the *Technical Steps* and *Coding Process* illustrated below. As each step is presented throughout this guide, appropriate portions of the illustration below will be repeated as a reference point in the implementation process.



\*Step 4 applies to the Online Express Mail Label API only. It does not appear in the Administrative Guide for APIs. See the Certify Your User Interface section for details.

*Implementing these APIs requires experienced programmers who are familiar with Internet and web site development tools and techniques. Before implementing either of these APIs, the Administrative Guide for Application Programming Interfaces must be read.*

## Label Options

In addition to the Express Mail shipping label, the API provides a printed Customer Online Record. There are two options in how the labels are returned—either together on the same page or separated and printed on two pages. Users also have the option of using the shipping information returned and generating their own Express Mail labels. See the *Creating Your Own Labels* section.

For illustration purposes, there are two examples shown below. The top example shows Express Mail labels returned on the same page. The bottom examples show Express Mail labels returned on two pages. Note that the bottom examples show the labels printed in the same position when returned on two pages.

**POSTAL USE ONLY**

SHIP TO:  Home  Business  Other

INSURE:  Yes  No

TRACKING:  Yes  No



EO 950 040 007 US

**USPS EXPRESS MAIL**

XYZ CORPORATION  
1234 ETAILER DR  
LOS ANGELES CA 90052-1234

SHIP TO: LINDA E. SHOPPER  
APT. 2C  
100 MAIN ST.  
NEW YORK NY 10010-3345

NO DELIVERY WEDNESDAYS OR HOLIDAYS

(978) 556-1212

**E**

POSTAGE  
REQUIRED

Instructions: Ensure that the Express Mail label is securely affixed to the shipping container. DO NOT place tape over any printed area of the shipping label.

---

✂ Cut Along Line and Retain Bottom Portion For Your Records. If You Bring Your Item to the Post Office, Present this Record for a Proof of Mailing Receipt.

**EXPRESS MAIL CUSTOMER Online Record DO NOT MAIL**

UNITED STATES POSTAL SERVICE

ORIGIN (POSTAL USE ONLY)		POSTAGE
SHIP TO: <input type="checkbox"/> Home <input type="checkbox"/> Business <input type="checkbox"/> Other	INSURE: <input type="checkbox"/> Yes <input type="checkbox"/> No	POSTAGE: \$ 18.85
TRACKING: <input type="checkbox"/> Yes <input type="checkbox"/> No	WEIGHT: 2	POSTAGE PAID TO: \$



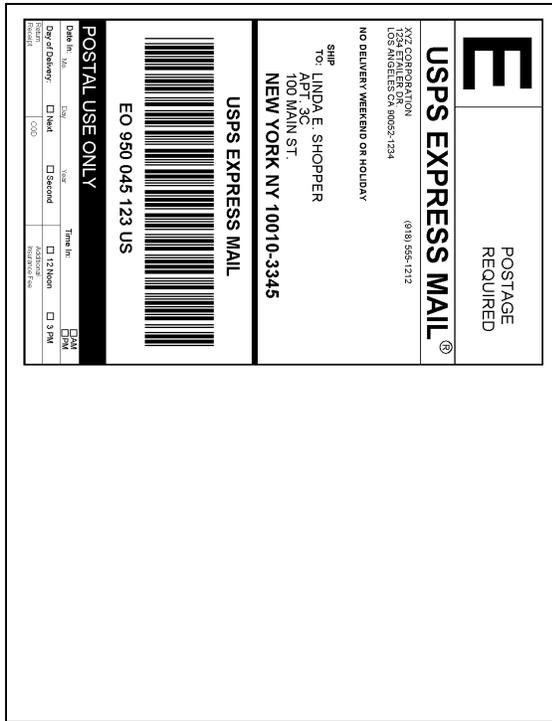
EO 950 040 007 US

☐ WAIVER OF SIGNATURE (POSTAGE ONLY) Additional merchandise insurance is not available if signature is required. Signature required for the entire article. Signature required for articles valued at \$500.00 or more. Signature required for articles valued at \$500.00 or more. Signature required for articles valued at \$500.00 or more.

CUSTOMER INFORMATION	
XYZ CORPORATION 1234 ETAILER DR LOS ANGELES CA 90052-1234	LINDA E. SHOPPER APT. 2C 100 MAIN ST NEW YORK NY 10010-3345

FOR PICKUP OR TRACKING CALL 1-800-222-1811 [www.usps.com](http://www.usps.com)

Example #1 (above): labels printed on same page. Example #2 (below): labels printed in same position, but on two separate pages.



(The above images are not to scale.)

All Express Mail labels returned by the USPS server contain a barcode and corresponding tracking number. The elements of the tracking number (EO 000 152 519 US in the sample below) are as follows:

### USPS EXPRESS MAIL



EO 000 152 519 US

(The above image is not to scale.)

Element	Description
EO	Two-letter USPS tracking series prefix
00015251	8-digit sequence number
9	Mod 11 check digit
US	Two letter USPS tracking series suffix for domestic Express Mail

The tracking number is used to uniquely identify each piece of Express Mail and record acceptance and delivery information. This information is used to measure service performance and identify service failures in response to refund requests.

## User ID and Password Restrictions

The user ID and password that you have received are for you or your company to use in accordance with the Terms and Conditions of Use to which you agreed during the registration process. *This user ID and password are not to be shared with others outside your organization, nor are they to be packaged, distributed, or sold to any other person or entity.* Please refer to the Terms and Conditions of Use Agreement for additional restrictions on the use of your user ID and password, as well as this document and the APIs contained herein.

**Warning:** If the U.S. Postal Service discovers use of the same user ID and password from more than one web site, all users will be subject to immediate loss of access to the USPS server and termination of the licenses granted under the Terms and Conditions of Use.

The documentation and sample code contained in the *Web Tool Kit User's Guide* series may be reused and/or distributed to your customers or affiliates to generate awareness, encourage web tool use, or provide ease-of-use. However, it is your responsibility to ensure that your customers do not use your password and user ID. Direct them to <http://www.uspswebtools.com/> so that they can register, agree to the Terms and Conditions of Use agreement, and receive their own unique password and user ID.

*Note to Software Distributors:* The User ID and password restrictions discussed above are intended for e-tailers that use the USPS Web Tools exclusively within their own web sites. If you plan to distribute software with the USPS Web Tools embedded, you must refer to the *Software Distributors Policy Guide*, available at <http://www.uspswebtools.com/>.

For more information regarding the USPS Web Tool Kit password and user ID policy, or for questions regarding the distribution of documentation, send e-mail to [icustomer@usps.com](mailto:icustomer@usps.com).

## Certify Your User Interface (Admin Step #4)

This Administrative Step is specific to the Online Express Mail Label API. It does not appear in the *Administrative Guide for APIs*.

In addition to developing and testing the transaction procedures between your server and the USPS API server, there are specific business rules that must be incorporated into your user interface. These business rules ensure that the end-user understands the features and service options of the U.S. Postal Service's Express Mail product. This section defines those specific features that must be incorporated into your web site to explain these features to your end-users.

Prior to obtaining access to the USPS API production server, you will be required to review and certify compliance with the checklist included at the end of this section. This checklist must be signed and submitted to the Internet Customer Care Center (ICCC) before you will be granted access to the production server. The checklist can be copied from this document and submitted to the ICCC via e-mail at [icustomer@usps.com](mailto:icustomer@usps.com).

## Online Express Mail Program Website Requirements

The following table identifies the functionality that must be incorporated into the user interface you create for your end users.

<b>Feature or Option</b>	<b>Description</b>	<b>Functionality Required</b>
Terms & Conditions (see required text following table)	This information is currently printed on the backside of the Customer Copy of the multi-ply Express Mail label.	Your interface must require end-users to agree to these terms & conditions each time they print an Express Mail label. Alternately, you may develop a registration process and allow users to "always agree" to the terms & conditions.
PO ZIP Code	Users who plan to mail their item from a post office other than the sender ZIP Code must enter the ZIP Code where they plan to mail the item.	Your interface must prompt the user to enter the ZIP Code where the item will be mailed if different from the sender address ZIP Code. This information must also be submitted in the XML transaction.
Flat Rate	Mailers using an USPS Express Mail Flat Rate envelope should select this option. This option allows mailers to place as much material, regardless of weight, into the envelope providing it can be properly sealed.	If a user selects this feature, the following rules apply: <ul style="list-style-type: none"> <li>• Weight is not required.</li> <li>• Flat rate indicator must be submitted in your XML transaction.</li> </ul>
Weight	The total weight of the item to be shipped.	This information must be entered by the user and submitted in the XML transaction if the Flat Rate option is not selected.
No Delivery Weekend and/or No Delivery Holiday	This feature allows the user to defer delivery on a weekend and/or holiday. This may be selected if the sender knows the recipient is not available on the weekend or holiday (e.g., business addresses).	Your interface must allow the user to request No Delivery on Weekend and/or Holiday. This information must also be submitted in the XML transaction.
Waiver of Signature	This feature allows the user to waive the signature requirement and authorize the delivery employee signature as proof of delivery. This option is not available if additional insurance is requested.	Your interface must allow the user to request the waiver option. If selected, this information must also be submitted in the XML transaction.
Customer Online Record	The ability to print a Customer Online Record must be included in your user interface.	This record can be printed at the same time as the shipping label or stored electronically and printed on demand.

**User Interface Messaging**

The following (or similar) messages must appear as a pop-up box or similar function to inform your end users of options:

<b>Option</b>	<b>Message</b>
PO ZIP Code	Enter the ZIP Code of the post office where you plan to mail your Express Mail item if it is different than your return address ZIP Code.
Flat Rate	Check here if you are using an Express Mail Flat Rate envelope.
No Delivery Weekend	Check here if you know the recipient is not available on the weekend and do not want delivery attempted until the following business day.
No Delivery Holiday	Check here if you know the recipient is not available on the holiday and do not want delivery attempted until the following business day.

## Additional Special Services

The following message must be included on the user-input screen regarding additional special services:

Return Receipt, Collect-On-Delivery (COD), and additional Insurance are available for an additional fee. To request any of these additional services, you must bring your item to a post office for acceptance.

## Terms and Conditions for Use (Required Text)

It is your responsibility to include the following terms and conditions on your web site. Your customers must electronically agree to them before they are allowed to print Express Mail labels.

### TERMS & CONDITIONS

**Service Guarantee:** *Online Express Mail labels are restricted to Post-Office-to-Addressee domestic shipments to U.S. destinations, including Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands. They cannot be used for international shipments, shipments to APO/FPOs, or to the remaining U.S. Territories, Possessions, and Freely Associated States.*

If the shipment is mailed at a designated USPS Express Mail facility on or before the specified deposit time for overnight delivery to the addressee, delivery to the addressee or agent will be attempted before the guaranteed time the next delivery day. Signature of the addressee, addressee's agent, or delivery employee is required upon delivery. If a delivery attempt is not made by the guaranteed time and the mailer files a claim for a refund, the USPS will refund the postage, unless: 1) delivery was attempted but could not be made, or the article was available for pickup at the destination, 2) this shipment was delayed by strike or work stoppage, or 3) detention was made for a law enforcement purpose.

A notice is left for the addressee when an item cannot be delivered on a first attempt. If the item cannot be delivered on the second attempt and is not claimed by the addressee within five days of the second attempt, it will be returned to sender at no additional postage.

Please consult your local Express Mail directory for noon and 3:00 p.m. delivery areas. See the *Domestic Mail Manual* for details.

**Insurance Coverage:** Insurance is provided only in accordance with postal regulations in the *Domestic Mail Manual* (DMM). The DMM sets forth the specific types of losses that are covered, the limitations on coverage, terms of insurance, conditions of payment, and adjudication procedures. Copies of the DMM are available for inspection at any post office. If copies are not available and information on Express Mail insurance is requested, please contact postmaster prior to mailing. The DMM consists of federal regulations, and USPS personnel are NOT authorized to change or waive these regulations or grant exceptions. Limitations prescribed in the DMM provide, in part, that:

- The contents of Express Mail shipments defined by postal regulations as merchandise are insured against loss, damage, or rifling. Coverage up to \$100 per shipment is included at no additional charge. Additional merchandise insurance up to \$5,000 per shipment may be purchased for an additional fee; however, additional insurance is void if waiver of the addressee's signature is requested.
- Coverage extends to the actual value of the contents at the time of mailing or the cost of repairs, not to exceed the limit fixed for the insurance coverage obtained.
- Items defined by postal regulations as "negotiable items" (items that can be converted to cash without resort to forgery), currency, or bullion are insured up to a maximum of \$15 per shipment.
- Items defined by postal indemnity regulations as nonnegotiable documents are insured against loss, damage, or rifling up to \$500 per shipment for document reconstruction, subject to additional limitations for multiple pieces lost or damaged in a single catastrophic occurrence. Document reconstruction insurance provides reimbursement for the reasonable costs incurred in reconstructing duplicates of nonnegotiable

documents mailed. Document reconstruction insurance coverage above \$500 per shipment is NOT available, and attempts to purchase additional document insurance are void.

- No coverage is provided for consequential losses due to loss, damage, or delay of Express Mail, or for concealed damage, spoilage of perishable items, and articles improperly packaged or too fragile to withstand normal handling in the mail.

**COVERAGE, TERMS, AND LIMITATIONS ARE SUBJECT TO CHANGE.** Please Consult *Domestic Mail Manual* for additional limitations and terms of coverage.

**Claims:** Online Customer Receipt of the Express Mail label must be presented when filing an indemnity claim and/or for a postage refund.

All claims for delay, loss, damage, or rifling must be made within 90 days of the date of mailing.

Claim forms may be obtained and filed at any post office.

To file a claim for damage, the article, container, and packaging must be presented to the USPS for inspection. To file a claim for loss of contents, the container and packaging must be presented to the USPS for inspection.

PLEASE DO NOT REMAIL.

**THANK YOU FOR CHOOSING EXPRESS MAIL.**

## Online Express Mail Label Application Programming Interface Website Functionality Checklist

This checklist must be signed and submitted to the Internet Customer Care Center (see page i) before you will be granted access to the production server.

COMPANY NAME: \_\_\_\_\_

CONTACT NAME: \_\_\_\_\_

CONTACT PHONE #: \_\_\_\_\_

USER ID: \_\_\_\_\_

Check the preceding boxes to indicate compliance on your site:

- My web site requires users to agree to the terms & conditions for Express Mail as directed in the *Online Express Mail Label Application Programming Interface Technical Guide*.
- My web site prompts users to enter the mailing ZIP Code when it is different than the ZIP Code of the sender address. This information is included in the XML transaction and on the Customer Online Record.
- My web site allows users to select the Flat Rate option and this information is included in the XML transaction and on the Customer Online Record.
- My web site requires users to input the weight of the shipment if the Flat Rate option is not selected. This information is included in the XML transaction and on the Customer Online Record.
- My web site allows users to select the No Delivery Weekend and/or Holiday option. This information is included in the XML transaction and on the Customer Online Record.
- My web site allows users to select the Waiver of Signature option and this information is included in the XML transaction and on the Customer Online Record.
- My web site allows the user to print a Customer Online Record as specified in the *Online Express Mail Label Application Programming Interface Technical Guide*.
- My web site complies with the "User Interface Messaging" and "Additional Special Services" messaging contained in the *Online Express Mail Label Application Programming Interface Technical Guide*.

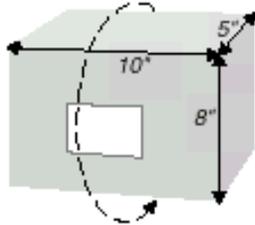
Signed \_\_\_\_\_ Date \_\_\_\_\_

## Size Restrictions

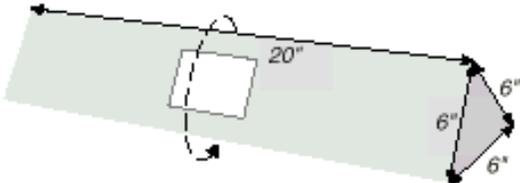
The user has two choices for shipping containers. Flat rate envelopes are available from the U.S. Postal Service at no charge. The other choice is to use your own envelope or box. If using your own container, the maximum size for packages is 84 inches or less for the package length *plus* girth. If necessary, use the graphic below to determine the combined length and girth in inches:

**How to Measure Length and Girth**

For parcels, length is the measurement of the longest dimension and girth is the measurement around the thickest part (perpendicular to the length).



Length = 10"  
Girth (8 + 5 + 8 + 5) = 26"  
Length + Girth = 36"



Length = 20"  
Girth (6 + 6 + 6) = 18"  
Length + Girth = 38"

Measurement	Maximum
Length + Girth	108 inches <sup>1</sup>
Weight	70 pounds

<sup>1</sup> Except for Parcel Post, no mailpiece may measure more than 108 inches in length and girth combined. Parcel Post pieces measuring over 108 inches but not more than 130 inches in combined length and girth are available at the applicable oversized rate.

## Transaction Procedures

The illustration below shows the transactional flow of information to and from the USPS Online Express Mail Label API server.

### Online Express Mail Label API Server



#### INPUTS

(via XML Request from Customer to USPS)

Delivery Address & Phone #  
 Return Address & Phone #  
 Package Weight  
 Mailing Location ZIP Code  
 Label Image Type  
 Ship Date  
 Flat Rate Request  
 Address Standardization Request  
 Waiver of Signature  
 No Holiday Delivery  
 No Weekend Delivery  
 Customer Online Record on Separate Page  
 Customer Reference #  
 E-mail Notification Info

#### SERVER TASKS

Builds XML Response  
 Generates Label  
 Encodes Label  
 Sends E-mail  
 Notification

#### OUTPUTS

(via XML Response from USPS to Customer)

Online Express Mail Label  
 Separate Page Customer Online  
 Record (if requested)  
 Tracking Number  
 Postage Required  
 Cleansed Address

### Technical Steps

#### Step 1: Build the XML Request

##### ***“Canned” Test Requests***

For testing purposes, the only values in the test code in this section that you should change are the “USERID,” “PASSWORD,” and “SERVERNAME.” Enter the user ID, password, and server name you received in the registration e-mail for *testing*. Your user ID and password never change, but the server name will change later when you send “sample” and “live” requests. The “live” server name will be provided when the ICCC provides you with access to the production server. ***All remaining code in the test scripts provided below must remain unchanged.***

All of the test script code contained in this document can be cut and pasted for your use in testing the software. To copy the test script code from this PDF file, click on the icon for “Text Selector” and highlight the code. (The icon will look like

abc

or

T

depending on your version of Adobe Acrobat.) You can then copy the code and paste it into your test document.

### Valid Test Requests

There are four valid test requests included in this procedure. Be sure to note the request numbers so you can match up the responses you will receive as provided in the “Canned” Test Responses section.

#### Test Request #1

```
<ExpressMailLabelRequest USERID="xxxxxxx" PASSWORD="xxxxxxx">
  <Option/>
  <EMCAAccount/>
  <EMCAPassword/>
  <ImageParameters/>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm>XYZ Corporation</FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2>1234 ETAILER DR.</FromAddress2>
  <FromCity>Los Angeles</FromCity>
  <FromState>CA</FromState>
  <FromZip5>90052</FromZip5>
  <FromZip4>1234</FromZip4>
  <FromPhone></FromPhone>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/><ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
  <ToZip4>1234</ToZip4>
  <ToPhone></ToPhone>
  <WeightInOunces>37</WeightInOunces>
  <FlatRate></FlatRate>
  <WaiverOfSignature>TRUE</WaiverOfSignature>
  <NoHoliday>TRUE</NoHoliday>
  <POZipCode>90210</POZipCode>
  <ImageType>NONE</ImageType>
</ExpressMailLabelRequest>
```

### Test Request #2

```
<ExpressMailLabelRequest USERID="xxxxxxx" PASSWORD="xxxxxxx">
  <Option/>
  <EMCAAccount/>
  <EMCAPassword/>
  <ImageParameters/>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm>XYZ Corporation</FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2>1234 ETAILER DR.</FromAddress2>
  <FromCity>Los Angeles</FromCity>
  <FromState>CA</FromState>
  <FromZip5>90052</FromZip5>
  <FromZip4>1234</FromZip4>
  <FromPhone></FromPhone>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
  <ToZip4>1234</ToZip4>
  <ToPhone></ToPhone>
  <WeightInOunces/>
  <FlatRate>TRUE</FlatRate>
  <NoWeekend>TRUE</NoWeekend>
  <POZipCode/>
  <ImageType>PDF</ImageType>
</ExpressMailLabelRequest>
```

### Test Request #3

```
<ExpressMailLabelRequest USERID="xxxxxxx" PASSWORD="xxxxxxx">
  <Option/>
  <EMCAAccount/>
  <EMCAPassword/>
  <ImageParameters/>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm>XYZ Corporation</FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2>1234 ETAILER DR.</FromAddress2>
  <FromCity>Los Angeles</FromCity>
  <FromState>CA</FromState>
  <FromZip5>90052</FromZip5>
  <FromZip4>1234</FromZip4>
  <FromPhone></FromPhone>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
```

```
<ToState>NY</ToState>
<ToZip5>10010</ToZip5>
<ToZip4>1234</ToZip4>
<ToPhone></ToPhone>
<WeightInOunces>13</WeightInOunces>
<FlatRate>FALSE</FlatRate>
<NoWeekend>TRUE</NoWeekend>
<SeparateCustomer Online RecordPage>TRUE</SeparateCustomer Online
RecordPage>
<POZipCode/>
<ImageType>PDF</ImageType>
</ExpressMailLabelRequest>
```

### ***Pre-Defined Error Requests***

There are four pre-defined errors included for this procedure. Be sure to note the request numbers so you can match up the responses you will receive as provided in the “*Canned*” *Test Responses* section.

#### **Pre-defined Error Request #1: “*Ship Date in Past*”**

```
<ExpressMailLabelRequest USERID="xxxxxxx" PASSWORD="xxxxxxxx">
  <Option/>
  <EMCAAccount/>
  <EMCAPassword/>
  <ImageParameters/>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm>XYZ Corporation</FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2>1234 ETAILER DR.</FromAddress2>
  <FromCity>Los Angeles</FromCity>
  <FromState>CA</FromState>
  <FromZip5>90052</FromZip5>
  <FromZip4>1234</FromZip4>
  <FromPhone></FromPhone>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
  <ToZip4>1234</ToZip4>
  <ToPhone></ToPhone>
  <WeightInOunces>37</WeightInOunces>
  <FlatRate></FlatRate>
  <POZipCode>90210</POZipCode>
  <ImageType>NONE</ImageType>
  <LabelDate>02/28/2000</LabelDate>
</ExpressMailLabelRequest>
```

### Pre-defined Error Request #2: "Invalid ZIP Code"

```
<ExpressMailLabelRequest USERID="xxxxxxx" PASSWORD="xxxxxxxx">
  <Option/>
  <EMCAAccount/>
  <EMCAPassword/>
  <ImageParameters/>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm>XYZ Corporation</FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2>1234 ETAILER DR.</FromAddress2>
  <FromCity>Los Angeles</FromCity>
  <FromState>CA</FromState>
  <FromZip5>90052</FromZip5>
  <FromZip4>12345</FromZip4>
  <FromPhone></FromPhone>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
  <ToZip4>1234</ToZip4>
  <ToPhone></ToPhone>
  <WeightInOunces/>
  <FlatRate>TRUE</FlatRate>
  <POZipCode/>
  <ImageType>PDF</ImageType>
</ExpressMailLabelRequest>
```

### Pre-defined Error Request #3: "Invalid Weight"

```
<ExpressMailLabelRequest USERID="xxxxxxx" PASSWORD="xxxxxxxx">
  <Option/>
  <EMCAAccount/>
  <EMCAPassword/>
  <ImageParameters/>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm>XYZ Corporation</FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2>1234 ETAILER DR.</FromAddress2>
  <FromCity>Los Angeles</FromCity>
  <FromState>CA</FromState>
  <FromZip5>90052</FromZip5>
  <FromZip4>1234</FromZip4>
  <FromPhone></FromPhone>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
```

```

<ToZip4>1234</ToZip4>
<ToPhone></ToPhone>
<WeightInOunces>four</WeightInOunces>
<FlatRate>FALSE</FlatRate>
<POZipCode/>
<ImageType>PDF</ImageType>
</ExpressMailLabelRequest>
    
```

**XML Tags and Values Allowed (Required & Optional)**

The first table below presents the *required* XML input tags for generating both “*Sample*” and “*Live*” requests and the restrictions on the values allowed. A second table is also included with *optional* tags for the Online Express Mail Label API. An error message will be returned if an incorrect value is entered. Also, be aware of the maximum character amounts allowed for some tags. If the user enters more than those amounts, an error will not be generated. ***The API will simply pass in the characters up to the maximum amount allowed and disregard the rest.*** This is important since the resulting value could prevent delivery.

**Required Express Mail Shipping Label Tags**

<b>Input</b>	<b>XML Tag</b>	<b>Values Allowed</b>
<b>"Sample" Request</b>	<ExpressMailLabelCertifyRequest ...	Input tag exactly as presented.
<b>"Live" Request</b>	<ExpressMailLabelRequest ...	Input tag exactly as presented.
User ID	...USERID="userid"...	Use user ID provided with registration.
Password	...PASSWORD="password">	Use password provided with registration.
	<Option>	This tag is required, but is for future use. For now, do not enter any value.
	<EMCAAccount>	This tag is required, but is for future use. For now, do not enter any value.
	<EMCAPassword>	This tag is required, but is for future use. For now, do not enter any value.
	<ImageParameters>	This tag is required, but is for future use. For now, do not enter any value.
First Name of Sender	<FromFirstName>	Values for <b>either</b> First and Last Name <b>or</b> Firm must be sent. Maximum Length: 26 characters for <b>both</b> names <b>or</b> firm name.
Last Name of Sender	<FromLastName>	Values for <b>either</b> First and Last Name <b>or</b> Firm must be sent. Maximum Length: 26 characters for <b>both</b> names <b>or</b> firm name.
Company Name	<FromFirm>	Values for <b>either</b> First and Last Name <b>or</b> Firm must be sent. Maximum Length: 26 characters for <b>both</b> names <b>or</b> firm name.
From Address Line 1	<FromAddress1>	This value is optional. Use this tag for a suite or apartment number only. If none, leave blank. Maximum Length: 26
From Address Line 2	<FromAddress2>	Use this tag for the primary address line. Maximum Length: 26
From City	<FromCity>	Maximum Length: 13
From State	<FromState>	Use 2-letter USPS abbreviation

From ZIP Code	<FromZip5>	Input tag exactly as presented, not all caps. Maximum characters allowed: 5
From ZIP Code+4	<FromZip4>	Input tag exactly as presented, not all caps. This tag is required but the value is optional. Maximum characters allowed: 4
From Phone #	<FromPhone>	10 digits required (including area code), with no punctuation. Use format: 2125551234
First Name of Recipient	<ToFirstName>	Values for <b>either</b> First and Last Name <b>or</b> Firm must be sent. Maximum Length: 26 characters for <b>both</b> names <b>or</b> firm name.
Last Name of Recipient	<ToLastName>	Values for <b>either</b> First and Last Name <b>or</b> Firm must be sent. Maximum Length: 26 characters for <b>both</b> names <b>or</b> firm name.
Company Name	<ToFirm>	Values for <b>either</b> First and Last Name <b>or</b> Firm must be sent. Maximum Length: 26 characters for <b>both</b> names <b>or</b> firm name.
To Address Line 1	<ToAddress1>	This value is optional. Use this tag for a suite or apartment number only. If none, leave blank. Maximum Length: 26
To Address Line 2	<ToAddress2>	Use this tag for the primary address line. Maximum Length: 26
To City	<ToCity>	Unless declined using the <StandardizeAddress> tag (see <i>Optional Tags</i> , below) the API will cleanse (check) the address using USPS databases. Values for <b>either</b> To City and To State <b>or</b> Zip 5 must be sent. Maximum Length: 26 characters for <b>both</b> City and State combined.
To State	<ToState>	Unless declined using the <StandardizeAddress> tag (see <i>Optional Tags</i> , below) the API will cleanse (check) the address using USPS databases. Values for <b>either</b> To City and To State <b>or</b> Zip 5 must be sent. Maximum Length: 26 characters for <b>both</b> City and State combined.
To ZIP Code	<ToZip5>	Input tag exactly as shown, not all caps. Unless declined using the <StandardizeAddress> tag (see <i>Optional Tags</i> , below) the API will cleanse (check) the address using USPS databases. Values for <b>either</b> To City and To State <b>or</b> Zip 5 must be sent. 5 numerals required.
To ZIP Code+4	<ToZip4>	Input tag exactly as shown, not all caps. This tag is required but the value is optional. 4 numerals required.
Recipient Phone #	<ToPhone>	Value is optional. If value is entered, 10 digits required (including area code), with no punctuation. Use format: 2125551234
Package Weight	<WeightInOunces>	Items must weigh 70 pounds or less. If <FlatRate> is requested (see <i>Optional Tags</i> , below), no value is required here. Maximum Value: 1120 (70 lbs)
Mailing Location	<POZipCode>	ZIP Code of Post Office or collection box where item is <b>mailed</b> . May be different than From ZIP Code.
Label Image Type	<ImageType>	Enter <b>one</b> of the valid entries: "PDF" or "GIF" if label is desired "None" if label is not desired

### Optional Online Express Mail Label API Tags

The Online Express Mail Label API has a set of optional tags that may be sent with your request. Following a brief description of the functions of these tags is a table similar to the *Required Tags* table with values allowed.

You can post-date the Express Mail label up to three days in advance by using the <LabelDate> tag. The mailing date entered should reflect the actual date the package will be shipped.

Express Mail flat rate envelopes allow users to place as much material in the envelope as long as it can be reasonably sealed, regardless of weight, and pay the 2-pound rate. If they select the flat rate envelope, you can identify this option using the <FlatRate> tag. When this option is selected, the weight is not required.

To enhance delivery, you can request that the delivery address be checked against the USPS Address Matching System (AMS) by using the <StandardizeAddress> tag. Identified errors will be returned to allow the user to correct them.

You may waive the requirement for the addressee to sign for the item by using the <WaiverOfSignature> tag. If selected, the user agrees to allow delivery to be made without obtaining the signature of the addressee or addressee's agent (if delivery employee judges that article can be left in secure location). In this case, the user authorizes the delivery employee's signature to constitute valid proof of delivery.

You may decline holiday or weekend delivery by using the <NoHoliday> and <NoWeekend> tags, respectively. This may apply if they are sending an item to an address where no one is available to receive the shipment on the weekend or a holiday.

You can print the Customer Online Record on a separate page from the shipping label by using the <SeparateReceiptPage> tag. This option is further explained in the *Label Options* section.

If you have a need to cross-reference information about a shipment using your own tracking or inventory systems, use the <CustomerRefNo> tag.

You can send e-mail notifications to your customers to notify them of the Express Mail package tracking number. They can use this number to track the package on [www.usps.com](http://www.usps.com). The following is a sample e-mail message transmitted with this feature:

```
From: ExpressMailAlert@USPSshippingapis.com
Sent: Tuesday, June 05, 2001 9:37 AM
To: <RecipientEMail>
Cc: <SenderEMail>
Subject: Express Mail Tracking Number

Dear <RecipientName>:

Below is the Express Mail Number you need for tracking your package.

Express Mail Confirmation Number EO001211637US

Your package is scheduled for shipment on 6/5/01.

This email was automatically generated by the US Postal Service
(www.usps.com) at the shipper's request. Any reply to this email will not be
```

received by the USPS or shipper. The USPS has not collected or retained any personally identifying information about you or your purchase from this email.

Thank you,  
 <SenderName>  
 mailto:<SenderEMail>

The only tag **required** to use the e-mail feature is <RecipientEMail>. The other three are not required to use the e-mail feature.

- The name of the person or company sending the e-mail is entered with the <SenderName> tag. This name will appear in the text of the Express Mail e-mail message.
- The address of the person or company sending the e-mail is entered with the <SenderEMail> tag. This address will appear in the text of the Express Mail e-mail message. This address will be cc:'d when the e-mail is sent.
- The name of the person or company receiving the e-mail is entered with the <RecipientName> tag. This name will appear in the TO: field of the Express Mail e-mail message as well as in the text of the message.
- The address of the person or company receiving the e-mail is entered with the <RecipientEMail> tag. This e-mail address will appear in the TO: field of the Express Mail e-mail message. Although this field is considered optional for the Express Mail API, if e-mail is desired it is the only required field. Without this field, the e-mail will not be sent.

<b>Input</b>	<b>XML Tag</b>	<b>Values Allowed</b>
Flat Rate Request	<FlatRate>	Enter "True" or "False." False is assumed if no value is entered.
Delivery Address Cleansed	<StandardizeAddress>	Enter "True" if you want the API to check the address for accuracy or "False" if you do not. True is assumed if no value is entered.
No Signature Required for Delivery	<WaiverOfSignature>	Enter "True" if you do not want a signature for receipt of the package or "False" if you do. False is assumed if no value is entered.
No Holiday Delivery	<NoHoliday>	Enter "True" if you do not want the package delivered on a holiday or "False" if you do. False is assumed if no value is entered.
No Weekend Delivery	<NoWeekend>	Enter "True" if you do not want the package delivered on a weekend or "False" if you do. False is assumed if no value is entered.
Label & Customer Online Record Printed on 2 Pages	<SeparateReceiptPage>	Enter "True" if you want the shipping label and online customer record printed on 2 separate pages or "False" if you want them printed on the same single page. False is assumed if no value is entered.
Date Package Will Be Mailed	<LabelDate>	Ship date may be today plus 0 to 3 days in advance. Enter the date in either format: dd-mmm-yyyy, such as 14-Feb-2001, or mm/dd/yyyy, such as 02/14/2001.

User-assigned Number for Internal Use	<CustomerRefNo>	Maximum Length: 30 alpha/numeric characters
Name of E-mail Sender	<SenderName>	Name of sender.
E-mail Address of Sender	<SenderEMail>	Valid e-mail addresses must be used.
Name of E-mail Recipient	<RecipientName>	Name of recipient.
E-mail Address of Recipient	<RecipientEMail>	Valid e-mail addresses must be used.

**“Sample” Request**

When you are initially granted access to the production server, the only output you are able to receive is a “Sample” label. This continues until you receive printer approval from the ICCC. **You should start using new valid data for the sample labels.** “Sample” requests **must** be used for all testing purposes. Using “Live” requests enters the package in the USPS tracking system.

All of the test script code contained in this document can be cut and pasted for your use in testing the software. To copy the test script code from this PDF file, click on the icon for “Text Selector” and highlight the code. (The icon will look like



or



depending on your version of Adobe Acrobat.) You can then copy the code and paste it into your test document. Remember, however, that all data and attribute values in this document are for illustration purposes and are to be replaced by your actual values. For instance, a line of sample code may be:

```
<FromName>Joe Smith</FromName>
```

In this instance, you will replace “Joe Smith” with the name of the person sending the package when making your request. **Also remember that you are provided with a different server name to send “live” requests.**

Refer to the *XML Tags and Values Allowed* section, above, to build your “Sample” request. When building the XML request, pay particular attention to the **order and case** for tags. An error message will be returned if an incorrect value is entered. Also, be aware of the maximum character amounts allowed for some tags. If the user enters more than those amounts, an error will not be generated. **The API will simply pass in the characters up to the maximum amount allowed and disregard the rest.** This is important since the resulting value could prevent delivery.



**Developers:** For sample code utilizing Perl and ASP, refer to the Domestic Rates Calculator API and Track/Confirm API user's guides.

The “Sample” XML request should be in the following form and sequence (optional tags are in bold):

```

<ExpressMailLabelCertifyRequest USERID="xxxxxxx" PASSWORD="xxxxxxx">
  <Option></Option>
  <EMCAAccount></EMCAAccount>
  <EMCAPassword></EMCAPassword>
  <ImageParameters></ImageParameters>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm></FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2></FromAddress2>
  <FromCity></FromCity>
  <FromState></FromState>
  <FromZip5></FromZip5>
  <FromZip4></FromZip4>
  <FromPhone></FromPhone>
  <ToFirstName></ToFirstName>
  <ToLastName></ToLastName>
  <ToFirm></ToFirm>
  <ToAddress1></ToAddress1>
  <ToAddress2></ToAddress2>
  <ToCity></ToCity>
  <ToState></ToState>
  <ToZip5></ToZip5>
  <ToZip4></ToZip4>
  <ToPhone></ToPhone>
  <WeightInOunces></WeightInOunces>
  <FlatRate></FlatRate>
  <StandardizeAddress></StandardizeAddress>
  <WaiverOfSignature></WaiverOfSignature>
  <NoHoliday></NoHoliday>
  <NoWeekend></NoWeekend>
  <SeparateReceiptPage></SeparateReceiptPage>
  <POZipCode></POZipCode>
  <ImageType></ImageType>
  <LabelDate></LabelDate>
  <CustomerRefNo></CustomerRefNo>
  <SenderName></SenderName>
  <SenderEMail></SenderEMail>
  <RecipientName></RecipientName>
  <RecipientEMail></RecipientEMail>
</ExpressMailLabelCertifyRequest>

```

### **“Live” Request**

When the ICCC has notified you of your printer approval, full production access is immediately granted.

Refer to the *XML Tags and Values Allowed* section, above, to build your “Live” request. When building the XML request, pay particular attention to the **order and case** for tags. An error message will be returned if an incorrect value is entered. Also, be aware of the maximum character amounts allowed for some tags. If the user enters more than those amounts, an error will not be generated. **The API will simply pass in the characters up to the maximum amount allowed and disregard the rest.** This is important since the resulting value could prevent delivery.

Remember that all data and attribute values in this document are for illustration purposes and are to be replaced by your actual values. For instance, a line of sample code may be:

```
<FromName>Joe Smith</FromName>
```

In this instance, you will replace “Joe Smith” with the name of the person sending the package when making your request. ***Also remember that you are provided with a different server name to send “live” requests.***

The “Live” XML request should be in the following form and sequence (optional tags are in bold):

```
<ExpressMailLabelRequest USERID="xxxxxxx" PASSWORD="xxxxxxx">
  <Option></Option>
  <EMCAAccount></EMCAAccount>
  <EMCAPassword></EMCAPassword>
  <ImageParameters></ImageParameters>
  <FromFirstName></FromFirstName>
  <FromLastName></FromLastName>
  <FromFirm>XYZ Corporation</FromFirm>
  <FromAddress1></FromAddress1>
  <FromAddress2>1234 Etailer Dr.</FromAddress2>
  <FromCity>New York</FromCity>
  <FromState>ny</FromState>
  <FromZip5>10128</FromZip5>
  <FromZip4>0208</FromZip4>
  <FromPhone>9585551212</FromPhone>
  <ToFirstName>Linda E.</ToFirstName>
  <ToLastName>Shopper</ToLastName>
  <ToFirm></ToFirm>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 Main Street</ToAddress2>
  <ToCity>New York</ToCity>
  <ToState>ny</ToState>
  <ToZip5>10010</ToZip5>
  <ToZip4>1010</ToZip4>
  <ToPhone>9505551212</ToPhone>
  <WeightInOunces>12</WeightInOunces>
  <FlatRate>False</FlatRate>
  <StandardizeAddress>FALSE</StandardizeAddress>
  <WaiverOfSignature>TRUE</WaiverOfSignature>
  <NoHoliday>TRUE</NoHoliday>
  <NoWeekend>TRUE</NoWeekend>
  <SeparateReceiptPage>False</SeparateReceiptPage>
  <POZipCode></POZipCode>
  <ImageType>PDF</ImageType>
  <LabelDate></LabelDate>
  <CustomerRefNo></CustomerRefNo>
  <SenderName></SenderName>
  <SenderEMail></SenderEMail>
  <RecipientName></RecipientName>
  <RecipientEMail></RecipientEMail>
</ExpressMailLabelRequest>
```

### **Visual Basic Request**

Using the Microsoft XML object model in Visual Basic, such a request can be built as shown below. In this code sample, the data needed to build the XML is obtained from a form. The True/False type elements are obtained from a check box control and the ImageType is from a combo box control. All other fields are obtained from text box controls.

```
Dim RequestLevel As IXMLDOMElement
Dim DCElementLevel As IXMLDOMElement
Dim inetGet As New clsInetGet
Dim response As String
Dim t As Variant

Dim xmlDoc As New DOMDocument
Set RequestLevel = xmlDoc.createElement("ExpressMailLabelRequest")
RequestLevel.setAttribute "USERID", userid.Text
RequestLevel.setAttribute "PASSWORD", password.Text

'Load Express Mail values into request.

Set DCElementLevel = xmlDoc.createElement("Option")
Set t = xmlDoc.createTextNode(Option.Text)
DCElementLevel.appendChild t
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("EMCAAccount")
Set t = xmlDoc.createTextNode(EMCAAccount.Text)
DCElementLevel.appendChild t
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("EMCAPassword")
Set t = xmlDoc.createTextNode(EMCAPassword.Text)
DCElementLevel.appendChild t
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ImageParameters")
Set t = xmlDoc.createTextNode(ImageParameters.Text)
DCElementLevel.appendChild t
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromFirstName")
Set t = xmlDoc.createTextNode(FromFirstName.Text)
DCElementLevel.appendChild t
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromLastName")
Set t = xmlDoc.createTextNode(FromLastName.Text)
DCElementLevel.appendChild t
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromFirm")
Set t = xmlDoc.createTextNode(FromFirm.Text)
DCElementLevel.appendChild t
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromAddress1")
Set t = xmlDoc.createTextNode(FromAddr1.Text)
```

```
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromAddress2")
Set t = xmlDoc.createTextNode(FromAddr2.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromCity")
Set t = xmlDoc.createTextNode(FromCity.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromState")
Set t = xmlDoc.createTextNode(FromState.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromZip5")
Set t = xmlDoc.createTextNode(FromZip5.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromZip4")
Set t = xmlDoc.createTextNode(FromZip4.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("FromPhone")
Set t = xmlDoc.createTextNode(FromPhone.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToFirstName")
Set t = xmlDoc.createTextNode(ToFirstName.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToLastName")
Set t = xmlDoc.createTextNode(ToLastName.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToFirm")
Set t = xmlDoc.createTextNode(ToFirm.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToAddress1")
Set t = xmlDoc.createTextNode(ToAddr1.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToAddress2")
Set t = xmlDoc.createTextNode(ToAddr2.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)
```

```
Set DCElementLevel = xmlDoc.createElement("ToCity")
Set t = xmlDoc.createTextNode(ToCity.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToState")
Set t = xmlDoc.createTextNode(ToState.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToZip5")
Set t = xmlDoc.createTextNode(ToZip5.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToZip4")
Set t = xmlDoc.createTextNode(ToZip4.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ToPhone")
Set t = xmlDoc.createTextNode(ToPhone.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("WeightInOunces")
Set t = xmlDoc.createTextNode(weight.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("StandardizeAddress")
If cbStandardizeAddress.Value = vbChecked Then
    Set t = xmlDoc.createTextNode("TRUE")
Else
    Set t = xmlDoc.createTextNode("FALSE")
End If
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("WaiverOfSignature")
If cbWaiverOfSignature.Value = vbChecked Then
    Set t = xmlDoc.createTextNode("TRUE")
Else
    Set t = xmlDoc.createTextNode("FALSE")
End If
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("NoHoliday")
If cbNoHoliday.Value = vbChecked Then
    Set t = xmlDoc.createTextNode("TRUE")
Else
    Set t = xmlDoc.createTextNode("FALSE")
End If
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)
```

```
Set DCElementLevel = xmlDoc.createElement("NoWeekend")
If cbNoWeekend.Value = vbChecked Then
    Set t = xmlDoc.createTextNode("TRUE")
Else
    Set t = xmlDoc.createTextNode("FALSE")
End If
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("POZipCode")
Set t = xmlDoc.createTextNode(POZipCode.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("ImageType")
Set t = xmlDoc.createTextNode(Combo1.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

Set DCElementLevel = xmlDoc.createElement("LabelDate")
Set t = xmlDoc.createTextNode(LabelDate.Text)
DCElementLevel.appendChild (t)
Call RequestLevel.appendChild(DCElementLevel)

If CustomerRefNo.Text <> "" Then
    Set DCElementLevel = xmlDoc.createElement("CustomerRefNo ")
    Set t = xmlDoc.createTextNode(CustomerRefNo.Text)
    DCElementLevel.appendChild (t)
    Call RequestLevel.appendChild(DCElementLevel)
End If

If SenderName.Text <> "" Then
    Set DCElementLevel = xmlDoc.createElement("SenderName ")
    Set t = xmlDoc.createTextNode(SenderName.Text)
    DCElementLevel.appendChild (t)
    Call RequestLevel.appendChild(DCElementLevel)
End If

If SenderEMail.Text <> "" Then
    Set DCElementLevel = xmlDoc.createElement("SenderEMail ")
    Set t = xmlDoc.createTextNode(SenderEMail.Text)
    DCElementLevel.appendChild (t)
    Call RequestLevel.appendChild(DCElementLevel)
End If

If RecipientName.Text <> "" Then
    Set DCElementLevel = xmlDoc.createElement("RecipientName ")
    Set t = xmlDoc.createTextNode(RecipientName.Text)
    DCElementLevel.appendChild (t)
    Call RequestLevel.appendChild(DCElementLevel)
End If

If RecipientEMail.Text <> "" Then
    Set DCElementLevel = xmlDoc.createElement("RecipientEMail ")
    Set t = xmlDoc.createTextNode(RecipientEMail.Text)
    DCElementLevel.appendChild (t)
```

```
Call RequestLevel.appendChild(DCElementLevel)
End If
```

```
Call xmlDoc.appendChild(RequestLevel)
Set RequestLevel = Nothing
Set DCElementLevel = Nothing
```

## Steps 2 & 3: Make the Internet Connection and Send the XML Request

These two steps are presented together to simplify things. The two steps actually involve four separate functions:

1. making the connection to the API server (test server or production server)
2. sending the request (whether Visual Basic, Perl, ASP, or any other language)
3. receiving the response from the API server
4. closing the Internet connection

These steps are identical for sending “Canned” test requests, “Sample” requests, or “Live” requests. **Remember, however, that you are provided with a different server name to send “live” requests.**

This section describes two ways to make the Internet connection. This is not an all-inclusive list. It simply represents the most common and easiest ways to make the Internet connection.

- Using the USPS-supplied HTTP Connection DLL

*The HTTP Connection DLL is recommended for NT systems.* This software, created specifically for the USPS API implementation, provides e-tailers with a thread-safe sockets interface to submit XML requests and receive XML responses from the API server.

- Using Microsoft's WinInet

Although you can use the WinInet DLL to make the connection to the API server, it is not recommended for server applications due to limitations in the DLL. It is recommended that you either use the USPS-supplied HTTP Connection DLL or write your own sockets interface that can be used to make multiple connections and will remain thread-safe.

### Using HTTP Connection DLL

To obtain this code you must submit a Licensing Agreement. See the *Administrative Guide for APIs* for the agreement.

### Using WinInet

This sample code shows how to use Microsoft's WinInet DLL to make the Internet connection, using either the “GET” or “POST” (necessary for requests over 2K in size) methods. XMLSTRING represents the URL-encoded XML request and SERVERNAME indicates the

name of the USPS web site to which you are connecting. The two lines of code presented in boldface below must be changed depending on which step you are completing.

For "Canned" test requests the code should read:

```
File = "/ShippingAPItest.dll?"  
xml = "ExpressMailLabel&XML=" & XMLSTRING
```

For "Sample" test requests the code should read:

```
File = "/ShippingAPI.dll?"  
xml = "API=ExpressMailLabelCertify&XML=" & XMLSTRING
```

For "Live" requests the code should read:

```
File = "/ShippingAPI.dll?"  
xml = "API=ExpressMailLabel&XML=" & XMLSTRING
```

***Input:***

```
Dim hOpen As Long, hConnection As Long, hFile As Long, numread As Long  
Dim File As String, xml As String, sHeader As String, htmlFile As String, tmp  
As String * 2048  
Dim bDoLoop As Boolean
```

```
File = "/ShippingAPI.dll?"  
xml = "API=ExpressMailLabel&XML=" & XMLSTRING
```

```
hOpen = InternetOpen("", 1, vbNullString, vbNullString, 0)
```

```
hConnection = InternetConnect(hOpen, SERVERNAME, 0, _  
    "", "", 3, 0, 0)
```

```
.....  
'get  
'File = File & xml  
'hFile = HttpOpenRequest(hConnection, "GET", File, "HTTP/1.0", vbNullString,  
0, 0, 0)  
'OR  
.....
```

```
.....  
' post  
hFile = HttpOpenRequest(hConnection, "POST", File, "HTTP/1.0", vbNullString,  
0, 0, 0)
```

```
sHeader = "Content-Type: application/x-www-form-urlencoded" _  
    & vbCrLf
```

```
Call HttpAddRequestHeaders(hFile, _  
    sHeader, Len(sHeader), 0)  
.....
```

```
bDoLoop = HttpSendRequest(hFile, vbNullString, 0, xml, Len(xml))
```

```
bDoLoop = True  
While bDoLoop  
    tmp = vbNullString  
    bDoLoop = InternetReadFile(hFile, tmp, Len(tmp), numread)
```

```
    If Not bDoLoop Then
        Exit Sub
    Else
        htmlFile = htmlFile & Left$(tmp, numread)
        If Not CBool(numread) Then bDoLoop = False
    End If
Wend

If hFile <> 0 Then InternetCloseHandle (hFile)
If hConnection <> 0 Then InternetCloseHandle (hConnection)
If hOpen <> 0 Then InternetCloseHandle (hOpen)
```

#### Step 4: Unpack the XML Response

This step is identical for unpacking “Canned” test responses, “Sample” responses, or “Live” responses.

#### Types of Responses

When the USPS Shipping API returns a response, it will either return a successful response document or an error document. Anytime you receive a response, you should check to see if the document is <Error>. Refer to the *Errors* section.

#### Using Visual Basic

Using the Microsoft XML object model in Visual Basic, such responses can be unpacked as follows:

```
Dim oChild As IXMLDOMNode
    Dim nodeList As IXMLDOMNodeList
    Dim i As Integer
    Dim ExpressMailLabel As String
    Dim ExpressMailReceipt As String
    Dim ExpressMailConfirmationNumber As String
    Dim ToFirstName as String
    Dim ToLastName as String
    Dim ToFirm as String
    Dim ToAddress1 as String
    Dim ToAddress2 as String
    Dim ToCity as String
    Dim ToState as String
    Dim ToZip5 as String
    Dim ToZip4 as String
    Dim Postage as String
    Dim To as String
    Dim To as String

xmlDoc.validateOnParse = False
xmlDoc.loadXML (xmlStr) 'Response
Set nodeList = xmlDoc.getElementsByTagName("Error")
If nodeList.length > 0 Then 'Top-level Error
    Set n = nodeList.Item(0)
    For i = 0 To n.childNodes.length - 1
```

```
Set e = n.childNodes.Item(i)
Select Case e.nodeName
    Case "Source"
    Case "Number"
    Case "Description"
        lblRateMessage.Caption = e.firstChild.nodeValue
    Case "HelpFile"
    Case "HelpContext"
End Select
Next i
Else 'no Top-level Error
'Get the list of nodes.
Set nodeList = xmlDoc.getElementsByTagName
("ExpressMailLabelResponse")

For i = 0 To nodeList.length - 1
    Set oChild = nodeList.Item(i)

    Set oChild = oChild.firstChild
    While Not oChild Is Nothing
        Select Case oChild.nodeName

            Case "ToFirstName"
                If oChild.hasChildNodes Then
                    ToFirstName =
                        oChild.firstChild.nodeValue
                End If

            Case "ToLastName"
                If oChild.hasChildNodes Then
                    ToLastName =
                        oChild.firstChild.nodeValue
                End If

            Case "ToFirm"
                If oChild.hasChildNodes Then
                    ToFirm =
                        oChild.firstChild.nodeValue
                End If

            Case "ToAddress1"
                If oChild.hasChildNodes Then
                    ToAddress1 =
                        oChild.firstChild.nodeValue
                End If

            Case "ToAddress2"
                If oChild.hasChildNodes Then
                    ToAddress2 =
                        oChild.firstChild.nodeValue
                End If

            Case "ToCity"
                If oChild.hasChildNodes Then
                    ToCity =
                        oChild.firstChild.nodeValue
                End If
```

```
Case "ToState"
  If oChild.hasChildNodes Then
    ToState =
      oChild.firstChild.nodeValue
  End If

Case "ToZip5"
  If oChild.hasChildNodes Then
    ToZip5 =
      oChild.firstChild.nodeValue
  End If

Case "ToZip4"
  If oChild.hasChildNodes Then
    ToZip4 =
      oChild.firstChild.nodeValue
  End If

Case "Postage"
  If oChild.hasChildNodes Then
    Postage =
      oChild.firstChild.nodeValue
  End If

Case "EMConfirmationNumber"
  If oChild.hasChildNodes Then
    ExpressMailConfirmationNumber =
      oChild.firstChild.nodeValue
  Else
    'Err.Raise
    msERR_MISSING_ExpressMailConfirmationNumber, "",
    msERR_MISSING_ExpressMailConfirmationNumber
  End If

Case "EMLabel"
  If oChild.hasChildNodes Then
    ExpressMailLabel =
      oChild.firstChild.nodeValue
  Else
    'Err.Raise
    msERR_MISSING_ExpressMailLabel, "",
    msERR_MISSING_ExpressMailLabel
  End If

Case "EMReceipt"
  If oChild.hasChildNodes Then
    ExpressMailReceipt =
      oChild.firstChild.nodeValue
  End If

End Select
Set oChild = oChild.nextSibling
Wend
Next i
End If
Set xmlDoc = Nothing
```

## Base64 Decoding in VBScript in an ASP

```
<%@ Language=VBScript %>
<%
Dim dcOutput()
sBase = "ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/"
StreamLength = len(ExpressMailLabel)

'-----
'Strip cr/lf
dcCopylen = 0
dcCopy = ""
For j = 1 To StreamLength
    If ((Mid(DeliveryConfirmationLabel, j, 1) <> vbCr) And
Mid(DeliveryConfirmationLabel, j, 1) <> vbLf) Then
        dcCopy = dcCopy & Mid(DeliveryConfirmationLabel, j, 1)
        dcCopylen = dcCopylen + 1
    End If
Next
'-----

'-----
'Decode bulk of string
dcOutputlen = 0
ReDim dcOutput((dcCopylen * 3) / 4)
    For j = 1 To dcCopylen - 4 Step 4
        'map "A"-"/" to 0-63
        a = InStr(1, sBase, Mid(dcCopy, j, 1), vbBinaryCompare) - 1
        b = InStr(1, sBase, Mid(dcCopy, j + 1, 1), vbBinaryCompare) - 1
        c = InStr(1, sBase, Mid(dcCopy, j + 2, 1), vbBinaryCompare) - 1
        d = InStr(1, sBase, Mid(dcCopy, j + 3, 1), vbBinaryCompare) - 1
        'decode 0-63 to 0-255
        dcOutput(dcOutputlen) = (a * 4) Or ((b And 48) / 16)
        dcOutput(dcOutputlen + 1) = ((b And 15) * 16) Or ((c And 60) / 4)
        dcOutput(dcOutputlen + 2) = ((c And 3) * 64) Or (d And 63)

        dcOutputlen = dcOutputlen + 3
    Next
'-----

'-----
'Decode last 1-3 characters
a = InStr(1, sBase, Mid(dcCopy, j, 1), vbBinaryCompare) - 1
b = InStr(1, sBase, Mid(dcCopy, j + 1, 1), vbBinaryCompare) - 1
dcOutput(dcOutputlen) = (a * 4) Or ((b And 48) / 16)
If j + 2 <= dcCopylen Then
    c = InStr(1, sBase, Mid(dcCopy, j + 2, 1), vbBinaryCompare) - 1
    dcOutput(dcOutputlen + 1) = ((b And 15) * 16) Or ((c And 60) / 4)
    dcOutputlen = dcOutputlen + 1
End If
If j + 3 <= dcCopylen Then
    d = InStr(1, sBase, Mid(dcCopy, j + 3, 1), vbBinaryCompare) - 1
    dcOutput(dcOutputlen + 2) = ((c And 3) * 64) Or (d And 63)
    dcOutputlen = dcOutputlen + 1
End If
```

```

Response.ContentType = "Application/PDF"
for j = 0 to dcOutputlen - 1
    response.binarywrite chrB(dcOutput(j))
next
%>

```

**Errors**

Error conditions are handled at the main XML document level. For APIs that can handle multiple transactions, the error conditions for requests for multiple responses to be returned together are handled at the response level. For example: an API developer sends a request for rates for two packages. If the addresses are non-existent, an “Error document” is returned to the user. On the other hand, if the address for the first package is acceptable but not the second, the response document contains the information for the first address, but under the XML tag for the second address there is an error tag. When parsing, it is best to check for an error document first, before checking for good data.

Error documents follow the Visual Basic error standards and have the following format:

```

<Error>
    <Number></Number>
    <Source></Source>
    <Description></Description>
    <HelpFile></HelpFile>
    <HelpContext></HelpContext>
</Error>

```

where:

- Number = the error number generated by the API server
- Source = the component and interface that generated the error on the API server
- Description = the error description
- HelpFile = [reserved for future use]
- HelpContext = [reserved for future use]

Errors that are further down in the hierarchy also follow the above format.

**Output**

After following Technical Step 4 and unpacking the XML response, you will have the output from your request. This section describes the different outputs resulting from “Canned” test requests, “Sample” requests, and “Live” requests. All three types of requests result in an XML response with the following tags:

<b>Output</b>	<b>XML Tag</b>
“Sample” Response	<ExpressMailLabelCertifyResponse>
“Live” Response	<ExpressMailLabelResponse>
First Name of Recipient	<ToFirstName>
Last Name of Recipient	<ToLastName>
Company Name	<ToFirm>
To Address Line 1	<ToAddress1>
To Address Line 2	<ToAddress2>
To City	<ToCity>

To State	<ToState>
To ZIP Code	<ToZip5>
To ZIP Code+4	<ToZip4>
Amount of Postage Required	<Postage>
Express Mail Tracking Number	<EMConfirmationNumber>
Express Mail Label	<EMLabel>
Separate Express Mail Customer Online Record, if requested using <SeparateReceiptPage> tag	<EMReceipt>

**“Canned” Test Responses**

For your test to be successful, the following responses to Valid Test Requests and Pre-defined Test Requests should be returned *verbatim*. If any values were changed in your request, the following default error will occur:

```
<Error>
  <Number>-2147219040</Number>
  <Source>SQLServerTest;SQLServerTest.ExpMailLabel_Respond</Source>
  <Description>This Information has not been included in this Test
  Server.</Description>
  <HelpFile/>
  <HelpContext></HelpContext>
</Error>
```

Although the input may be valid, the response will still raise this error, because those particular values have not been included in this test server. Refer to the *Errors* section for an explanation of any other returned errors.

**Response to Test Request #1**

```
<ExpressMailLabelResponse>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
  <ToZip4>1234</ToZip4>
  <Postage>18.85</Postage>
  <EMConfirmationNumber>EA123456784US</EMConfirmationNumber>
</ExpressMailLabelResponse>
```

**Response to Test Request #2**

```
<ExpressMailLabelResponse>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
```

```
<ToZip4>1234</ToZip4>
<Postage>16.00</Postage>
<EMConfirmationNumber>EA123456784US</EMConfirmationNumber>
<EMLabel>
JVBERi0xLjINCjUgMChvYmoNCjw8DQovVHlwZSAvWE9iamVjda0KL1N1YnR5cGUg
L0ltYWdlDQovTmFtZSAvU25vd2JvdW5kMA0KL1dpZHRoIDYwMA0KL0hlaWdodCA0
MDANCi9CaXRzUGVYQ29tcG9uZW50IDENCi9Db2xvclNwYWNlIC9EZXXpY2VHcmF5
...
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
</EMLabel>
</ExpressMailLabelResponse>
```

### Response to Test Request #3

```
<ExpressMailLabelResponse>
  <ToFirstName>LINDA</ToFirstName>
  <ToLastName>SHOPPER</ToLastName>
  <ToFirm/>
  <ToAddress1>APT. 3C</ToAddress1>
  <ToAddress2>100 MAIN ST.</ToAddress2>
  <ToCity>NEW YORK</ToCity>
  <ToState>NY</ToState>
  <ToZip5>10010</ToZip5>
  <ToZip4>1234</ToZip4>
  <Postage>16.00</Postage>
  <EMConfirmationNumber>EA123456784US</EMConfirmationNumber>
  <EMLabel>
JVBERi0xLjINCjUgMChvYmoNCjw8DQovVHlwZSAvWE9iamVjda0KL1N1YnR5cGUg
L0ltYWdlDQovTmFtZSAvU25vd2JvdW5kMA0KL1dpZHRoIDYwMA0KL0hlaWdodCA0
MDANCi9CaXRzUGVYQ29tcG9uZW50IDENCi9Db2xvclNwYWNlIC9EZXXpY2VHcmF5
...
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA=
  </EMLabel>
  <EMCustomer Online Record>
JVBERi0xLjINCjUgMChvYmoNCjw8DQovVHlwZSAvWE9iamVjda0KL1N1YnR5cGUg
L0ltYWdlDQovTmFtZSAvU25vd2JvdW5kMA0KL1dpZHRoIDg1MA0KL0hlaWdodCAx
MTAwDQovQml0c1BlckNvbXBvbmVudCAxDQovQ29sb3JTcGFjZSAvRGV2aWNlR3Jh
...
MCBUdQowMDAwMDAzNDk5IDAwMDAwIG4NCjAwMDAwMDM2MTMgMDAwMDAgbg0KdHJh
aWxlcg0KPDwNCi9TaXplIDgNCi9Sb290IDEgMChvYWNlIC9EZXXpY2VHcmF5
OTU0DQolJUVPRg0K
  </EMCustomer Online Record>
</ExpressMailLabelResponse>
```

### Response to Pre-defined Error Request #1

```
<Error>
  <Number>-2147218242</Number>
  <Source>SOLServerTest;SOLServerTest.ExpMailLabel_Respond</Source>
  <Description>Ship Date must be within the next three days.</Description>
  <HelpFile/>
  <HelpContext></HelpContext>
</Error>
```

### Response to Pre-defined Error Request #2

```
<Error>
  <Number>-2147218248</Number>
  <Source>SOLServerTest;SOLServerTest.ExpMailLabel_Respond</Source>
  <Description>Return Zip +4 Code must be 4 digits.</Description>
  <HelpFile/>
  <HelpContext></HelpContext>
</Error>
```

### Response to Pre-defined Error Request #3

```
<Error>
  <Number>-2147218253</Number>
  <Source>SOLServerTest;SOLServerTest.ExpMailLabel_Respond</Source>
  <Description>The weight in ounces must be numeric. </Description>
  <HelpFile/>
  <HelpContext></HelpContext>
</Error>
```

### **“Sample” Responses**

The image returned is Base64-encoded in PDF or GIF format and must be decoded before use. For additional information on Base64-encoding and decoding, consult the following URLs: <http://www.ietf.org/rfc/rfc1421.txt?number=1421> (Section 4.3.2.4) and <http://www.ietf.org/rfc/rfc2045.txt?number=2045> (Section 6.8).

**Important:** Express Mail images are generated in high density 200 dpi format to accommodate the required barcode symbology. Therefore, when printing PDF files be sure that the “Fit to Page” option in the print dialogue box of Adobe Acrobat is **unchecked**. This will prevent undesirable scaling of the image and barcode. Like PDF, GIF must also be printed using an intelligent graphics package capable of handling the 200 dpi format. Note that most browsers handle only low density GIF images and are not acceptable for printing high density GIF images. Using a browser to print high density GIF images will result in oversized print images.

After decoding, the label should look like:

<b>POSTAL USE ONLY</b>		 EO 950 045 123 US		<b>USPS EXPRESS MAIL</b>		SHIP TO: LINDA E. SHOPPER APT. 3C 100 MAIN ST. NEW YORK NY 10010-3345		XYZ CORPORATION 1234 ETAILER DR. LOS ANGELES CA 90052-1234  (918) 555-1212		<b>E</b>  POSTAGE REQUIRED	
Date In: Mo. Day Year	Time In: AM PM	Day of Delivery: <input type="checkbox"/> Next <input type="checkbox"/> Second	Additional Insurance Fee: <input type="checkbox"/> 12 Noon <input type="checkbox"/> 3 PM	Return Receipt: <input type="checkbox"/> COD							

Instructions: Ensure that the Express Mail label is securely affixed to the shipping container. DO NOT place tape over any printed area of the shipping label.



Cut Along Line and Retain Bottom Portion For Your Records. If You Bring Your Item to the Post Office, Present this Record for a Proof of Mailing Receipt.

 <b>EXPRESS MAIL</b> UNITED STATES POSTAL SERVICE®		<b>CUSTOMER Online Record</b>		DO NOT MAIL	
<b>ORIGIN (POSTAL USE ONLY)</b>				 EO 950 045 123 US	
PO ZIP Code	Day of Delivery: <input type="checkbox"/> Next <input type="checkbox"/> Second	Flat Rate Envelope: <input type="checkbox"/>		Postage: \$ 18.85	
Date In: Mo. Day Year	<input type="checkbox"/> 12 NOON <input type="checkbox"/> 3 PM	Address to PO Box: <input type="checkbox"/>		Return Receipt Fee	
Time In: <input type="checkbox"/> AM <input type="checkbox"/> PM	Weight: lbs 2 ozs 1		COB Fee	Insurance Fee	
No Delivery: <input type="checkbox"/> Weekend <input type="checkbox"/> Holiday	Acceptance Clerk Initials	Total Postage & Fees: \$		<input type="checkbox"/> <b>WAIVER OF SIGNATURE</b> (Domestic only) <b>Additional merchandise insurance is void if waiver of signature is requested.</b> I wish delivery to be made without obtaining signature of addressee or addressee's agent (if delivery employee judges that article can be left in secure location) and I authorize that delivery employee's signature constitutes valid proof of delivery.	
<b>CUSTOMER INFORMATION</b>					
FROM: XYZ CORPORATION 1234 ETAILER DR. LOS ANGELES CA 90052-1234			TO: LINDA E. SHOPPER APT. 3C 100 MAIN ST. NEW YORK NY 10010-3345		
PHONE: (918) 555-1212			PHONE: (919) 555-1212		
Label 11-D June 2001					
FOR PICKUP OR TRACKING CALL 1-800-222-1811				www.usps.com	

(The image above is not to scale.)

## **“Live” Responses**

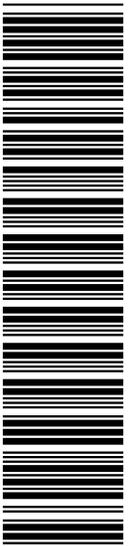
The image returned is Base64-encoded in PDF or GIF and must be decoded before use. For additional information on Base64-encoding and decoding, consult the following URLs:

<http://www.ietf.org/rfc/rfc1421.txt?number=1421> (Section 4.3.2.4) and

<http://www.ietf.org/rfc/rfc2045.txt?number=2045> (Section 6.8).

**Important:** Express Mail images are generated in high density 200 dpi format to accommodate the required barcode symbology. Therefore, when printing PDF files be sure that the “Fit to Page” option in the print dialogue box of Adobe Acrobat is **unchecked**. This will prevent undesirable scaling of the image and barcode. Like PDF, GIF must also be printed using an intelligent graphics package capable of handling the 200 dpi format. Note that most browsers handle only low density GIF images and are not acceptable for printing high density GIF images. Using a browser to print high density GIF images will result in oversized print images.

After decoding, the label should look like:

<b>POSTAGE REQUIRED</b>	
<b>E</b>	
<b>USPS EXPRESS MAIL®</b>	
XYZ CORPORATION 1234 ETAILER DR. LOS ANGELES CA 90052-1234 (918) 555-1212	
NO DELIVERY WEEKEND OR HOLIDAY	
SHIP TO: LINDA E. SHOPPER APT. 3C 100 MAIN ST. NEW YORK NY 10010-3345	
USPS EXPRESS MAIL  EO 950 040 007 US	
<b>POSTAL USE ONLY</b>	
Date In: Mo. Day Year	Time In: <input type="checkbox"/> AM <input type="checkbox"/> PM
Day of Delivery: <input type="checkbox"/> Next <input type="checkbox"/> Second	<input type="checkbox"/> 12 Noon <input type="checkbox"/> 3 PM
Return Receipt: <input type="checkbox"/> COD	Additional Insurance Fee: <input type="checkbox"/>

Instructions: Ensure that the Express Mail label is securely affixed to the shipping container.  
DO NOT place tape over any printed area of the shipping label.



Cut Along Line and Retain Bottom Portion For Your Records.  
If You Bring Your Item to the Post Office, Present this Record for a Proof of Mailing Receipt.

 <b>EXPRESS MAIL</b> UNITED STATES POSTAL SERVICE®		<b>CUSTOMER Online Record</b>	DO NOT MAIL
<b>ORIGIN (POSTAL USE ONLY)</b>		 <b>EO 950 040 007 US</b>	<input type="checkbox"/> <b>WAIVER OF SIGNATURE</b> (Domestic only) <b>Additional merchandise insurance is void if waiver of signature is requested.</b> I wish delivery to be made without obtaining signature of addressee or addressee's agent (if delivery employee judges that article can be left in secure location) and I authorize that delivery employee's signature constitutes valid proof of delivery.
PO ZIP Code	Day of Delivery <input type="checkbox"/> Next <input type="checkbox"/> Second		
Date In: Mo. Day Year	<input type="checkbox"/> 12 NOON <input type="checkbox"/> 3 PM	Postage <b>\$ 18.85</b>	
Time In: <input type="checkbox"/> AM <input type="checkbox"/> PM	Address to PO Box <input type="checkbox"/>	Return Receipt Fee	
Weight: lbs <b>2</b> oz <b>1</b>	Acceptance Clerk Initials	COD Fee	Insurance Fee
No Delivery: <input checked="" type="checkbox"/> Weekend <input checked="" type="checkbox"/> Holiday		Total Postage & Fees <b>\$</b>	
<b>CUSTOMER INFORMATION</b>			
FROM: PHONE (918) 555-1212 XYZ CORPORATION 1234 ETAILER DR. LOS ANGELES CA 90052-1234		TO: PHONE (919) 555-1212 LINDA E. SHOPPER APT. 3C 100 MAIN ST. NEW YORK NY 10010-3345	
Label 11-D-June 2001		FOR PICKUP OR TRACKING CALL 1-800-222-1811	
		www.usps.com	

(The image above is not to scale.)

### XML Output Example

```
<ExpressMailLabelResponse>
  <ToFirstName></ToFirstName>
  <ToLastName></ToLastName>
  <ToFirm></ToFirm>
  <ToAddress1></ToAddress1>
  <ToAddress2></ToAddress2>
  <ToCity></ToCity>
  <ToState></ToState>
  <ToZip5></ToZip5>
  <ToZip4></ToZip4>
  <Postage></Postage>
  <EMConfirmationNumber></EMConfirmationNumber>
  <EMLabel></EMLabel>
  <EMCustomer Online Record></EMCustomer Online Record>
</ExpressMailLabelResponse>
```

### Creating Your Own Labels

The Online Express Mail API generates a PDF or GIF image of both the Online Express Mail label and the Customer Online Record. When certified by the USPS, you may create your own labels using the information provided by the API. The following sections outline the requirements for designing your own labels.

#### Online Express Mail Label Requirements

If you are creating your own labels for the Online Express Mail API, your label must comply with the following specifications. Additionally, you must submit your labels for review and certification to the Internet Customer Care Center (see page i) before they can be used in a production environment. The Online Express Mail label has been designed to fit on a standard 4" by 6" shipping label.

The USPS standard shipping label has been divided into four segments. Each of these segments is comprised of one or more elements:

1. Mail Classification
  - Postage area
  - Service indicators
2. Addressing
  - Sender address
  - Recipient address
  - Endorsements
3. Barcode
  - Tracking Barcode
4. USPS Acceptance Information
  - Postal employees complete this section at the time of acceptance.

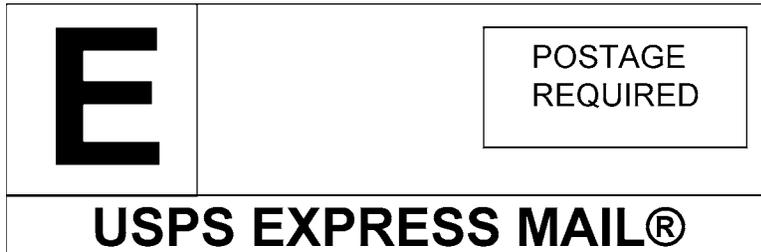
## Fonts

While specific font sizes are listed throughout these requirements, font support may vary significantly from printer to printer. In general, the font selection used should be OCR quality. Sans serif fonts are preferred. Helvetica or Arial font faces/families are highly recommended.

## Mail Classification Segment

**Postage Area.** The postage area must contain a box with the text POSTAGE REQUIRED as illustrated below. The text must be a minimum of 12 point.

**Service Indicators.** The service indicator is composed of two parts – the service icon and the service banner. The service icon must appear in a one-inch (minimum) square in the upper left corner of the shipping label and contain an upper case **E** to identify the mailpiece as Express Mail. The service banner contains the class of mail, appears below the service icon, and is centered across the shipping label. The class of mail text is bordered above and below by separator lines to distinguish it from the surrounding elements.



### Service Icon Specifications

- One-inch (1") square
- Light lines bordering area
- Icon must be ¾" inches or greater and printed in sans serif font
- Must contain "E" to identify label as Express Mail

### Service Banner Specifications

- 20 point bold, sans serif text
- Text must be centered across banner
- Text must be bordered above and below by 1 point lines
- 1/16<sup>th</sup> inch clearance above and below text
- Text in service banner must identify class of mail: USPS EXPRESS MAIL®

## Addressing Segment

The addressing segment contains the sender and recipient address information, and delivery options relating to the shipment.

### Sender Address Specifications

- Left justified in the top left portion of the address segment
- Font size of 8 point (approx.), sans serif

### Recipient Address Specifications

Linda E. Shopper ABC Corporation Suite 500 500 Oak St. Arlington VA 22207  WAIVER OF SIGNATURE REQUESTED NO DELIVERY WEEKEND OR HOLIDAY  SHIP TO: <b>JOHN SMITH ANY BUSINESS INC 1423 BLUEBERRY LANE STE 4200 ATLANTA GA 30328-3474</b>
--

- Printed below the return address
- The text “SHIP TO:” is printed beside the address
- Minimum font sizes (approx.)
- “SHIP TO:” should be 8-point bold, sans serif
- All address lines except City/State/ZIP Code should be 10 point, bold, sans serif
- City/State/ZIP Code should be 14-point bold, sans serif
- Whenever possible, the ZIP+4 Code should be used

### Delivery Options

For items where no delivery on holiday or weekends, or waiver of signature is requested, the appropriate endorsement must be placed directly below the senders address information.

### Endorsement Specifications

Linda E. Shopper ABC Corporation Suite 500 500 Oak St. Arlington VA 22207  WAIVER OF SIGNATURE REQUESTED NO DELIVERY WEEKEND OR HOLIDAY  SHIP TO: JOHN SMITH ANY BUSINESS INC 1423 BLUEBERRY LANE STE 4200 ATLANTA GA 30328-3474
--

- Must be placed directly below the return address
- Read direction must be same as delivery address
- Font size of 8-point (minimum), sans serif
- A clear space of ¼ inch around the endorsement is required

## Barcode Segment

The barcode segment appears directly below the address segment and contains the Express Mail tracking number assigned to uniquely identify the shipment. The horizontal identification bars, text above the barcode, and human readable numbers below the barcode are used in the identification of the mailpiece and must be printed to the specification listed below.

### Barcode Segment Specifications



Identification bars:

- Printed above and below barcode segment
- Extend across the entire width of the label
- Must be a minimum thickness of 0.062 inches

Human readable text above barcode:

- Printed above barcode
- Must be no less than 0.125 inches or more than 0.5 inches from horizontal identification bars
- Must be no less than 0.125 inches or more than 0.5 inches from barcode
- Font size must be 12-point (minimum) bold, sans serif (*Preferred 14 point*)
- Must be uppercase

Barcode:

- Must use USS Code 39 barcode symbology

- Must use Mod 11 check digit
- Must be a minimum of 0.75 inches in height
- For additional requirements, refer to the **Barcode Specifications** section.

Human readable text below barcode:

- Must be printed directly below the barcode
- Must be no less than 0.125 inches or more than 0.5 inches from the barcode
- Font size must be 10 point (minimum) bold, sans serif (12 point recommended)
- The human-readable representation of the barcode must be parsed as follows:

XX 999 999 999 XX

### **USPS Acceptance Information Segment**

This section must be formatted as listed below and is reserved for use by Postal employees to record actual acceptance information of mail pieces.

#### **Acceptance Information Specifications**

- Acceptance information area measures 1' by 4'
- Top ¼" contains black banner with POSTAL USE ONLY text printed in reverse print
- POSTAL USE ONLY text must be 12-point bold, sans serif
- The remainder of the area must be sectioned and contain the text and checkboxes as illustrated below:

<b>POSTAL USE ONLY</b>			
Date In: <small>Mo.</small> <small>Day</small> <small>Year</small>		Time In: <input type="checkbox"/> AM <input type="checkbox"/> PM	
Day of Delivery: <input type="checkbox"/> Next <input type="checkbox"/> Second		<input type="checkbox"/> 12 Noon <input type="checkbox"/> 3 PM	
Return Receipt	COD	Additional Insurance Fee	

#### **Barcode Specifications**

Online Express Mail label barcodes must be printed in the USS Code 39 symbology. If you generate your own barcode, you must adhere to the following print specifications:

**Dimensions.** The preferred range of widths of narrow bars and spaces is 0.015 inch to 0.017 inch. The width of any narrow bars or spaces must not be less than 0.013 inch, or no greater than 0.021 inch. All bars must be at least 0.75 inch high.

The ratio of wide-to-narrow element widths for Code 39 symbologies referred to as “N” must be 2.5 to 3.0 inclusive.

**Clear Zone.** No printing may appear in an area 0.125 inch above or below the barcode. A minimum clear zone (also called quiet zone) equal to 10 times the average measured narrow element (bar or space) width shall be maintained on either side of the barcode per Automatic

Identification Manufactures International (AIM), Inc. specifications. When feasible, a left/right clear zone of 0.250 inches is recommended.

**Reflectance.** When measured in the red spectral range between 630 nanometers and 675 nanometers, the minimum white space reflectance (Rs) must be greater than 50%, and the maximum bar reflectance (Rb) must be less than 25%. The minimum print reflectance difference (Rs – Rb) is 40%. The measurements must be made using a USPS-specified reflectance meter or a USPS-approved barcode verifier.

**Barcode Quality.** At least 70% of the barcodes must measure American National Standards Institute (ANSI) grade A or B, and none of the remaining portion can measure lower than ANSI grade C.

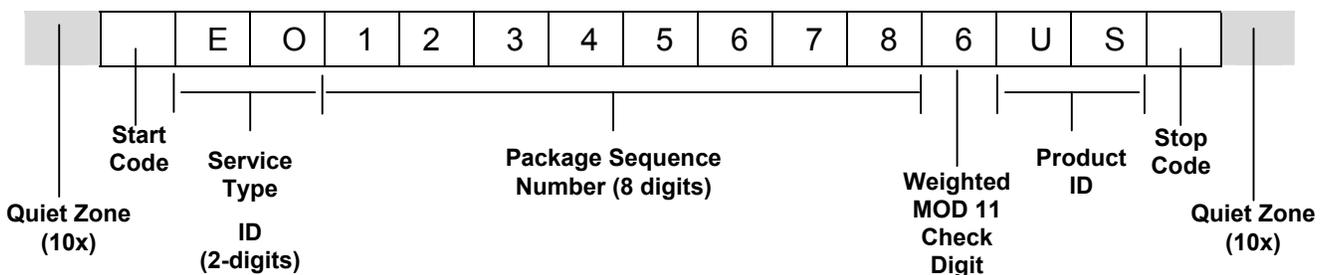
Information concerning ANSI barcode guidelines are in standard X3.182, Bar Code Print Quality Guideline, and may be obtained from:

AMERICAN NATIONAL STANDARDS INSTITUTE  
 11 W 42ND ST  
 NEW YORK NY 10036-8002  
 Telephone: 212-642-4900  
 Web site: [www.ansi.org](http://www.ansi.org)

Written technology standards for the USS Code 39 barcode symbology can be obtained from:

AIM INC.  
 634 ALPHA DR  
 PITTSBURGH PA 15238-2802  
 Telephone: 412-963-8588 (Technical Department)  
 Web site: [www.aimi.org](http://www.aimi.org)

**Data Format USS Code 39.**



**Customer Online Record Requirements**

Similar to creating your own labels for the Online Express Mail API, you are required to create a Customer Online Record, Label 11-D as illustrated below. You are required to populate the following data on the label:

- Sender name, address and phone number
- Recipient name, address and phone number (optional)
- Appropriate barcode and human readable numbers
- Complete the following sections on the label:
  - PO ZIP Code (if provided by mailer)
  - Flat Rate, Waiver of Signature, No Delivery Holiday or Weekend, Addressed to PO Box indicators
  - Weight
  - Postage

The label must be identical, or nearly identical, in design to the sample below.



Cut Along Line and Retain Bottom Portion For Your Records.  
If You Bring Your Item to the Post Office, Present this Record for a Proof of Mailing Receipt.

<b>EXPRESS MAIL</b> <small>UNITED STATES POSTAL SERVICE®</small>		<b>CUSTOMER Online Record</b>	DO NOT MAIL
ORIGIN (POSTAL USE ONLY)			
PO ZIP Code	Day of Delivery <input type="checkbox"/> Next <input type="checkbox"/> Second	Flat Rate Envelope <input type="checkbox"/>	
Date In Mo. Day Year	<input type="checkbox"/> 12 NOON <input type="checkbox"/> 3 PM	Postage <b>\$ 18.85</b>	
Time In <input type="checkbox"/> AM <input type="checkbox"/> PM	Address to PO Box <input type="checkbox"/>	Return Receipt Fee	
Weight lbs <b>2</b> ozs <b>1</b>		COD Fee	Insurance Fee
No Delivery <input checked="" type="checkbox"/> Weekend <input checked="" type="checkbox"/> Holiday	Acceptance Clerk Initials	Total Postage & Fees <b>\$</b>	

EO 950 045 123 US

**WAIVER OF SIGNATURE** (Domestic only) **Additional merchandise insurance is void if waiver of signature is requested.** I wish delivery to be made without obtaining signature of addressee or addressee's agent (if delivery employee judges that article can be left in secure location) and I authorize that delivery employee's signature constitutes valid proof of delivery.

CUSTOMER INFORMATION			
FROM: PHONE (918) 555-1212 XYZ CORPORATION 1234 ETAILER DR. LOS ANGELES CA 90052-1234	TO: PHONE (919) 555-1212 LINDA E. SHOPPER APT. 3C 100 MAIN ST. NEW YORK NY 10010-3345		

Label 11-0 June 2001 FOR PICKUP OR TRACKING CALL 1-800-222-1811 [www.usps.com](http://www.usps.com)

## Mailing Instructions and Label Placement on Packages

Third-party providers of labels should be sure to provide label placement information to their end-users. This information is critical to allow the USPS to accurately scan labels. A missing or improperly applied label does not allow the USPS to meet your expectations for providing Express Mail information. It will impact your ability to meet the 95% quality threshold. Whenever possible, the barcode label should be printed on a self-adhesive label.

The following instructions should be communicated to the end-users of Online Express Mail label:

- Ensure that the Express Mail label is securely affixed to the shipping container.
- DO NOT place tape or plastic wrap over any printed areas of the shipping label.
- DO NOT wrap shipping labels around any edge of the shipping container.