Shipping Package JSON Developer Guide

July 9, 2018

Important Information

UPS Developer Kit APIs

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

Defined terms used but not defined in this document have the meaning set forth in the UPS Technology Agreement.

Key Legal Requirements for UPS Developer APIs

Permitted Territories

This document can only be used in the countries of the Permitted Territory as defined in the UPS Technology Agreement, as applicable.

Use

The application must not be designed to allow distribution of information received through the UPS Developer Kit APIs to third parties, other than to persons having a bona fide interest in such information (e.g., the shipper, receiver, or the third party payer, or to your service providers authorized by UPS).

Consent to Use of UPS Mark

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

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

Copyright and Proprietary Notice

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

Display of Information

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

Notice

In all communications with UPS concerning this document, please refer to the document date located on the cover.

Copyright

Trademarks

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Table of Contents

Chapter 1: Introduction

In this document, you will find guidance and instructions for integrating the Shipping Package JSON API into your application, service, or system.

IMPORTANT:

- If this is your first time working with the UPS Developer Kit, begin with the *Introduction to the UPS Developer Kit* guide. This guide serves as the foundation for all API-specific developer guides.

- For additional API, XPath, and Error Code information, refer to the *Shipping Package Web Service Developer Guide.*

Chapter 2: Customer Integration Environment (CIE)

The Customer Integration Environment allows customers to test their application prior to launch. This environment is intended for integration testing of customer applications with the UPS servers.

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

📄 No stress testing should ever be performed by customers against any UPS systems.

To access testing and production sites the user must have an Access Key. You can request an Access Key after establishing a UPS profile and associating your shipping account.

System Availability

The Customer Integration Environment is available 24 hours a day, 7 days a week. Note the system is occasionally down for server maintenance.

JSON Testing and Production URLS

📄 All API URLs are case sensitive.

Ship

Testing: https://wwwcie.ups.com/rest/Ship

Production: https://onlinetools.ups.com/rest/Ship

Void Package

Testing: https://wwwcie.ups.com/rest/Void

Production: https://onlinetools.ups.com/rest/Void

Label Recovery

Testing: https://wwwcie.ups.com/rest/LBRecovery

Production: https://onlinetools.ups.com/rest/LBRecovery

To ensure that your application has the ability to process PDF and html responses correctly test your Label Recovery application using a set similar to 1Zs listed below:

NUMBER(S)	SCENARIO	EXPECTED RESULT
1Z12345E8791315509	Label returned in PDF format	Request is processed, label returned in PDF format
1Z12345E8791315413	Label returned in html format	Request is processed, label returned in html format

Chapter 3: JSON Examples

Published Rates ShipmentRequest

```
{
        "UPSSecurity": {
                "UsernameToken": {
                        "Username": "Your Username",
                        "Password": "Your Password"
                },
                "ServiceAccessToken": {
                        "AccessLicenseNumber": "Your Access License Number"
                }
        },
        "ShipmentRequest": {
                "Request": {
                        "RequestOption": "validate",
                        "TransactionReference": {
                                "CustomerContext": "Your Customer Context"
                        }
                },
                "Shipment": {
                        "Description": "Description",
                        "Shipper": {
                                "Name": "Shipper Name",
                                "AttentionName": "Shipper Attn Name",
                                "TaxIdentificationNumber": "123456",
                                "Phone": {
                                        "Number": "1234567890",
                                        "Extension": "1"
                                },
                                "ShipperNumber": "Your Shipper Number",
                                "FaxNumber": "1234567890",
                                "Address": {
                                        "AddressLine": "Address Line",
                                        "City": "City",
                                        "StateProvinceCode": "StateProvinceCode",
                                        "PostalCode": "PostalCode",
                                        "CountryCode": "CountryCode"
                                }
                        },
                        "ShipTo": {
                                "Name": "Ship To Name",
                                "AttentionName": "Ship To Attn Name",
                                "Phone": {
                                        "Number": "1234567890"
                                },
                                "Address": {
                                        "AddressLine": "Address Line",
                                        "City": "City",
                                        "StateProvinceCode": "StateProvinceCode",
                                        "PostalCode": "PostalCode",
                                        "CountryCode": "CountryCode"
                                }
```

```
                },
                "ShipFrom": {
                        "Name": "Ship From Name",
                        "AttentionName": "Ship From Attn Name",
                        "Phone": {
                                "Number": "1234567890"
                        },
                        "FaxNumber": "1234567890",
                        "Address": {
                                "AddressLine": "Address Line",
                                "City": "City",
                                "StateProvinceCode": "StateProvinceCode",
                                "PostalCode": "PostalCode",
                                "CountryCode": "CountryCode"
                        }
                },
                "PaymentInformation": {
                        "ShipmentCharge": {
                                "Type": "01",
                                "BillShipper": {
                                        "AccountNumber": "Your Account Number"
                                }
                        }
                },
                "Service": {
                        "Code": "01",
                        "Description": "Express"
                },
                "Package": {
                        "Description": "Description",
                        "Packaging": {
                                "Code": "02",
                                "Description": "Description"
                        },
                        "Dimensions": {
                                "UnitOfMeasurement": {
                                        "Code": "IN",
                                        "Description": "Inches"
                                },
                                "Length": "7",
                                "Width": "5",
                                "Height": "2"
                        },
                        "PackageWeight": {
                                "UnitOfMeasurement": {
                                        "Code": "LBS",
                                        "Description": "Pounds"
                                },
                                "Weight": "10"
                        }
                }
        },
        "LabelSpecification": {
                "LabelImageFormat": {
                        "Code": "GIF",
```

```
                                "Description": "GIF"
                        },
                        "HTTPUserAgent": "Mozilla/4.5"
                }
        }
}
```

Published Rates ShipmentResponse

```
{
        "ShipmentResponse": {
                "Response": {
                        "ResponseStatus": {
                                "Code": "1",
                                "Description": "Success"
                        },
                        "TransactionReference": {
                                "CustomerContext": "Your Customer Context"
                        }
                },
                "ShipmentResults": {
                        "ShipmentCharges": {
                                "TransportationCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "88.12"
                                },
                                "ServiceOptionsCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "0.00"
                                },
                                "TotalCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "88.12"
                                }
                        },
                        "BillingWeight": {
                                "UnitOfMeasurement": {
                                        "Code": "LBS",
                                        "Description": "Pounds"
                                },
                                "Weight": "10.0"
                        },
                        "ShipmentIdentificationNumber": "1ZISUS010191662852",
                        "PackageResults": {
                                "TrackingNumber": "1ZISUS010191662852",
                                "ServiceOptionsCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "0.00"
                                },
                                "ShippingLabel": {
                                        "ImageFormat": {
                                                "Code": "GIF",
                                                "Description": "GIF"
                                        },
```

```
                                    "GraphicImage":
"R0lGODdheAUgA+cAAAAAAEBAQICAgMDAwQEBAUFBQYGBgcHBwglCAkJCQoKCgsLCwwMDA0NDQ4O
Dg8PDxAQEBERERIS (Truncated)",
                                    "HTMLImage":
"PCFET0NUWVBFIEhUTUwgUFVCTElDICItLy9JRVRGLy9EVEQgSFRNTCAzLjlvL0VOlj4KPGh0b (Truncated)"
                                              }
                                        }
                                  }
                        }
```

Negotiated Rates ShipmentRequest

```
{
        "UPSSecurity": {
                "UsernameToken": {
                        "Username": "Your Username",
                        "Password": "Your Password"
                },
                "ServiceAccessToken": {
                        "AccessLicenseNumber": "Your Access License Number"
                }
        },
        "ShipmentRequest": {
                "Request": {
                        "RequestOption": "validate",
                        "TransactionReference": {
                                "CustomerContext": "Your Customer Context"
                        }
                },
                "Shipment": {
                        "Description": "Description",
                        "Shipper": {
                                "Name": "Shipper Name",
                                "AttentionName": "Shipper Attn Name",
                                "TaxIdentificationNumber": "123456",
                                "Phone": {
                                        "Number": "1234567890",
                                        "Extension": "1"
                                },
                                "ShipperNumber": "Your Shipper Number",
                                "FaxNumber": "1234567890",
                                "Address": {
                                        "AddressLine": "Address Line",
                                        "City": "City",
                                        "StateProvinceCode": "StateProvinceCode",
                                        "PostalCode": "PostalCode",
                                        "CountryCode": "CountryCode"
                                }
                        },
                        "ShipTo": {
                                "Name": "Ship To Name",
                                "AttentionName": "Ship To Attn Name",
                                "Phone": {
                                        "Number": "1234567890"
                                },
                                "Address": {
                                        "AddressLine": "Address Line",
                                        "City": "City",
                                        "StateProvinceCode": "StateProvinceCode",
                                        "PostalCode": "PostalCode",
                                        "CountryCode": "CountryCode"
                                }
                        },
                        "ShipFrom": {
                                "Name": "Ship From Name",
```

```json
                                "AttentionName": "Ship From Attn Name",
                                "Phone": {
                                        "Number": "1234567890"
                                },
                                "FaxNumber": "1234567890",
                                "Address": {
                                        "AddressLine": "Address Line",
                                        "City": "City",
                                        "StateProvinceCode": "StateProvinceCode",
                                        "PostalCode": "PostalCode",
                                        "CountryCode": "CountryCode"
                                }
                        },
                        "PaymentInformation": {
                                "ShipmentCharge": {
                                        "Type": "01",
                                        "BillShipper": {
                                                "AccountNumber": "Your Account Number"
                                        }
                                }
                        },
                        "Service": {
                                "Code": "01",
                                "Description": "Express"
                        },
                        "ShipmentRatingOptions": {
                                "NegotiatedRatesIndicator": "0"
                        },
                        "Package": {
                                "Description": "Description",
                                "Packaging": {
                                        "Code": "02",
                                        "Description": "Description"
                                },
                                "Dimensions": {
                                        "UnitOfMeasurement": {
                                                "Code": "IN",
                                                "Description": "Inches"
                                        },
                                        "Length": "7",
                                        "Width": "5",
                                        "Height": "2"
                                },
                                "PackageWeight": {
                                        "UnitOfMeasurement": {
                                                "Code": "LBS",
                                                "Description": "Pounds"
                                        },
                                        "Weight": "10"
                                }
                        }
                },
                "LabelSpecification": {
                        "LabelImageFormat": {
                                "Code": "GIF",
```

```
                                    "Description": "GIF"
                            },
                            "HTTPUserAgent": "Mozilla/4.5"
                    }
            }
}
```

Negotiated Rates ShipmentResponse

```
{
        "ShipmentResponse": {
                "Response": {
                        "ResponseStatus": {
                                "Code": "1",
                                "Description": "Success"
                        },
                        "TransactionReference": {
                                "CustomerContext": "Your Customer Context"
                        }
                },
                "ShipmentResults": {
                        "ShipmentCharges": {
                                "TransportationCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "88.12"
                                },
                                "ServiceOptionsCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "0.00"
                                },
                                "TotalCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "88.12"
                                }
                        },
                        "NegotiatedRateCharges": {
                                "TotalCharge": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "70.00"
                                }
                        },
                        "BillingWeight": {
                                "UnitOfMeasurement": {
                                        "Code": "LBS",
                                        "Description": "Pounds"
                                },
                                "Weight": "10.0"
                        },
                        "ShipmentIdentificationNumber": "1ZWA82900191640782",
                        "PackageResults": {
                                "TrackingNumber": "1ZWA82900191640782",
                                "ServiceOptionsCharges": {
                                        "CurrencyCode": "USD",
                                        "MonetaryValue": "0.00"
```

```
                                             },
                                             "ShippingLabel": {
                                                      "ImageFormat": {
                                                               "Code": "GIF",
                                                               "Description": "GIF"
                                                      },
                                                      "GraphicImage":
"R0lGODdheAUgA+cAAAAAAAEBAQICAgMDAwQEBAUFBQYGBgcHBwgICAkJCQoKCgsLCwwMDA0NDQ4O
Dg8PDxAQEBERERISEhM (Truncated)",
                                                      "HTMLImage":
"PCFET0NUWVBFIEhUTUwgUFVCTElDICItLy9JRVRGLy9EVEQgSFRNTCAzLjlvL0VOIj4KPGh0bWw+PGhlY
(Truncated)"
                                             }
                                    }
                           }
                  }
         }
```

LabelRecoveryRequest Example

```json
{
        "UPSSecurity": {
                "UsernameToken": {
                        "Username": "Your User Id",
                        "Password": "Your Password"
                },
                "ServiceAccessToken": {
                        "AccessLicenseNumber": "Your Access License Number"
                }
        },
        "LabelRecoveryRequest": {
                "LabelSpecification": {
                        "LabelImageFormat": {
                                "Code": "GIF"
                        },
                        "HTTPUserAgent": "Mozilla/4.5"
                },
                "Translate": {
                        "LanguageCode": "eng",
                        "DialectCode": "GB",
                        "Code": "01"
                },
                "TrackingNumber": "Your Tracking Number"
        }
}
```

LabelRecoveryResponse Example

```json
{
        "LabelRecoveryResponse": {
                "Response": {
                        "ResponseStatus": {
                                "Code": "1",
                                "Description": "Success"
                        }
                },
                "LabelResults": [
                        {
                                "TrackingNumber": "Your Tracking Number",
                                "LabelImage": {
                                        "LabelImageFormat": {
                                                "Code": "gif"
                                        },
                                        "GraphicImage":
"R0lGODdheAUgA+cAAAAAAEBAQICAgMDAwQEBAUFBQYGBgcHBwgICA (Truncated)",
                                        "HTMLImage":
"PCFET0NUWVBFIEhUTUwgUFVCTElDICItLy9JRVRGLy9EVEQgSFRNTCAzLjlvL0VOIj4KPGh0bWw(Truncate
d)",
                                        "PDF417":
"R0lGODdhLAG8AucAAAAAAEBAQICAgMDAwQEBAUFBQYGBgcHBwgICAkJCQoKCgsLCwwMDA0N(Trunc
ated)"
                                },
                                "Receipt": {
```

```
                                   "HTMLImage":
"PGh0bWw+PGhlYWQ+PHRpdGxlPlJlY2VpcHQ8L3RpdGxlPjwvaGVhZD48Ym9keT48aDM+RWxlY3Ryb25pcYy
BSZXR1cm(Truncated)"
                                   }
                            },
                            {
                                   "TrackingNumber": "Your Tracking Number",
                                   "LabelImage": {
                                          "LabelImageFormat": {
                                                 "Code": "gif"
                                          },
                                          "GraphicImage":
"R0lGODdheAUgA+cAAAAAAAEBAQICAgMDAwQEBAUFBQYGBgcHBwgICAkJCQoKCgsLCwwMDA0N(Trunc
ated)",
                                          "HTMLImage":
"PCFET0NUWVBFIEhUTUwgUFVCTElDICItLy9JRVRGLy9EVEQgSFRNTCAzLjIvL0VOIj4KPGh0bWw+(Truncat
ed)",
                                          "PDF417":
"R0lGODdhLAG8AucAAAAAAAEBAQICAgMDAwQEBAUFBQYGBgcHBwgICAkJCQoKCgsL(Truncated)"
                                   },
                                   "Receipt": {
                                          "HTMLImage":
"PGh0bWw+PGhlYWQ+PHRpdGxlPlJlY2VpcHQ8L3RpdGxlPjwvaGVhZD48Ym9keT48(Truncated)"
                                   }
                            }
                     ]
              }
}
```

VoidShipmentRequest Example

```json
{
        "UPSSecurity": {
                "UsernameToken": {
                        "Username": "Your Username",
                        "Password": "Your Password"
                },
                "ServiceAccessToken": {
                        "AccessLicenseNumber": "Your Access License Number"
                }
        },
        "VoidShipmentRequest": {
                "Request": {
                        "TransactionReference": {
                                "CustomerContext": "Your Customer Context"
                        }
                },
                "VoidShipment": {
                        "ShipmentIdentificationNumber": "Your Shipment Identification Number"
                }
        }
}
```

VoidShipmentResponse Example

```json
{
        "VoidShipmentResponse": {
                "Response": {
                        "ResponseStatus": {
                                "Code": "1",
                                "Description": "Success"
                        },
                        "TransactionReference": {
                                "CustomerContext": "Your Customer Context"
                        }
                },
                "SummaryResult": {
                        "Status": {
                                "Code": "1",
                                "Description": "Voided"
                        }
                }
        }
}
```

Chapter 4: JSON Error Codes

Code	Description
1	**Unrecognized Error** Any error, other than those listed below, causing an issue with the request. • Verify the request headers are correct. • Retry the request again later
2	**Unknown Operation** The UPS system does not understand the operation and is unable to forward the request to the correct API. • Verify the request headers are correct. • Check request structure.
3	**Network Error** Transient error indicating the network is hindering request submission. • Retry the request again later.
4	**JSON Syntax Error** Indicates a problem with the JSON syntax. • Verify your request syntax is correct.