

**.NET Software Development Kit (SDK):
Developing Applications Using the USPS
Service Delivery Extensions**

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1 .NET Software Development Kit Overview

This software development kit (SDK) is intended to provide software and Internet developers with the ability to integrate postage rate information into programs and/or web sites.

1.1 Licenses and Liability

The information and components contained within this SDK may be distributed only to individuals who have signed the USPS User License and may only be used in accordance with the terms of the USPS User License. The USPS assumes no liability for the incorrect implementation of this SDK once it has been incorporated into a client product. The USPS will supply upgrades to the data and/or the objects when needed, but it assumes no part in distribution of these upgrades once the engine has been integrated into client products.

1.2 Purpose

This document is to be used as a supplement to .NET Software Development Kit documentation for the Domestic, International and Business Rate Engines. These documents are titled as following:

- .NET Software Development Kit (SDK): Developing Applications Using the USPS Domestic Retail Rate Engine
- .NET Software Development Kit (SDK): Developing Applications Using the USPS International Retail Rate Engine
- .NET Software Development Kit (SDK): Developing Applications Using the USPS Domestic Business Rate Engine

1.3 Contact Information

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2 Application Programming Interface (API)

2.1 ExpressMailGuaranteed Class

2.1.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.1.2 Base Class

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity.ServiceCommitment

2.2 ExpressMailGuaranteedItem Class

2.2.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.2.2 Base Class

None

2.2.3 Properties

Name	Type	Description
Name	string	The guaranteed name
Code	string	The guaranteed code

2.3 ExpressMailGuaranteedItemCollection Class

2.3.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.3.2 Base Class

list<International.Entity.ExpressMailGuaranteedItem>

2.4 KPGException Class

2.4.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.4.2 Base Class

RateEngineException

2.5 OnlineServiceCommitment Class

2.5.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity

2.5.2 Base Class

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity.ServiceCommitment

2.5.3 Properties

Name	Type	Description
CommitmentName	string	Gets or sets the commitment name.
CommitmentSequence	string	Gets or sets the commitment sequence.
CommitmentTime	string	Gets or sets the commitment time.
DeliveryDateTime	DateTime	Gets or sets the delivery date and time.
EstimatedDeliveryTime	string	Gets or sets the estimated delivery time.
HoldForPickupLocations	PostalLocationCollection	Gets a reference to a collection of postal locations for hold for pickup.
IsHoliday	bool	Gets or sets a flag that indicates if it is a holiday or not.
Locations	PostalLocationCollection	Gets a reference to a collection of postal locations.

2.6 RequestProperties Class

2.6.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity

2.6.2 Base Class

None

2.6.3 Properties

Name	Type	Description
Destination	RequestLocation	The destination location

IDCard	IDCard	Gets and sets the ID card for the request
MailPieceContents	MailPieceContentCollection	A collection of mail service contents
Origin	RequestLocation	The origin location
Pounds	decimal	The weight of the mail piece in pounds
ShippingDateTime	DateTime	The shipping date and time.

2.7 RequestProperties Class

2.7.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.7.2 Base Class

None

2.7.3 Properties

Name	Type	Description
Destination	RequestLocation	The destination location
IDCard	IDCard	Gets and sets the ID card for the request
MailPieceContents	MailPieceContentCollection	A collection of mail service contents
Origin	RequestLocation	The origin location
ShippingDateTime	DateTime	The shipping date and time.

2.8 RequestProperties.RequestLocation Class

2.8.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity

2.8.2 Base Class

None

2.8.3 Properties

Name	Type	Description
------	------	-------------

IsPOBox	bool	Indicates if the location is a PO Box
ZIP	ZipCode	The ZIP code of the location

2.9 RequestProperties.RequestLocation Class

2.9.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.9.2 Base Class

None

2.10 ServiceCommitment Class

2.10.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity

2.10.2 Base Class

None

2.10.3 Properties

Name	Type	Description
ErrorMessage	string	Gets or sets the error message text.
ErrorNumber	int	Gets or sets the value of the error number.
Product	string	Gets or sets the product name.
ServiceCommitmentType	ServiceCommitmentType.Type	The type is this service commitment. See section 2.2.4
ServiceCommitmentGuarantee	Guarantee	Gets or sets service commitment guarantee. See the <i>Guarantee</i> enumeration for valid values.
UsedByMailService	MailServiceIDCollection	Gets a reference to a collection of mail

		service IDs for the mail services that use this service commitment.
--	--	---

2.10.4 Type Enumeration

Name	Value	Description
Unknown	0	The service commitment type is unknown.
ExpressMail	1	The service commitment type is Express Mail.
PriorityMail	2	The service commitment type is Priority Mail
FirstClassMail	3	The service commitment type is First Class Mail.
StandardMail	4	The service commitment type is Standard Mail.
Periodicals	5	The service commitment type is periodicals.
PackageServices	6	The service commitment type is package services.

2.10.5 Guarantee Enumeration

Name	Value	Description
Unknown	0	The guarantee type is unknown.
NoGuarantee	1	The guarantee type is no guarantee.
MoneyBackGuarantee	2	The guarantee type is money back.
LossOnlyGuarantee	3	The guarantee type is lost only.

2.11 ServiceCommitment.PostalLocation Class

2.11.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity

2.11.2 Base Class

None

2.11.3 Properties

Name	Type	Description						
City	string	Gets or sets the city of the location.						
CloseTimes	string[]	Gets or sets an array of close times for the location. <table border="1" data-bbox="748 1780 1133 1898"> <thead> <tr> <th>Index</th> <th>Day</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Sunday</td> </tr> <tr> <td>1</td> <td>Monday</td> </tr> </tbody> </table>	Index	Day	0	Sunday	1	Monday
Index	Day							
0	Sunday							
1	Monday							

		2	Tuesday	
		3	Wednesday	
		4	Thursday	
		5	Friday	
		6	Saturday	
		7	Holiday	
CutOff	string	Gets or sets the cutoff time to this location.		
Facility	string	Gets or sets the facility name.		
FacilityID	string	Gets or sets the facility ID.		
ScheduledDeliveryDate	DateTime	Gets or sets the scheduled delivery date.		
State	string	Gets or sets the state of the location.		
Street	string	Gets or sets the street of the location.		
ZipCode	string	Gets or sets the ZIP Code of the location.		
ZipCode4	string	Gets or sets the ZIP Code+4 of the location.		

2.12 ServiceCommitment.PostalLocationCollection Class

2.12.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity

2.12.2 Base Class

List<ServiceCommitment.PostalLocation>

2.13 ServiceCommitment Class

2.13.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.13.2 Base Class

None

2.13.3 Properties

Name	Type	Description
City	string	Gets and sets the city
DeliveryDate	string	
ErrorMessage	string	Gets or sets the error message text.
ErrorNumber	int	Gets or sets the value of the error number.
ServiceCommitmentType	Type	The type is this service commitment. See section 2.2.4

ShippingDate	DateTime	The accepted shipping date
ShippingTime	string	The accepted shipping time
UsedByMailService	MailServiceIDCollection	Gets a reference to a collection of mail service IDs for the mail services that use this service commitment.

2.13.1 Type Enumeration

Name	Value	Description
Unknown	0	The service commitment type is unknown.
GXG	1	The service commitment type is GXG
ExpressMail	2	The service commitment type is Express Mail.
PriorityMail	3	The service commitment type is Priority Mail
FirstClassMail	4	The service commitment type is First Class Mail.
ISAL	5	The service commitment type is ISAL.
IPA	6	The service commitment type is IPA.
MBag	7	The service commitment type is mail bag.

2.14 ServiceCommitmentCollection Class

2.14.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.Domestic.Entity

2.14.2 Base Class

List<.Domestic.Entity.ServiceCommitment>

2.14.3 FindByType Method

Description

This method is used to find a service commitment in the collection by specifying the commitment type.

Syntax

```
public ServiceCommitment FindByType(
    ServiceCommitment.Type type
)
```

```
public ServiceCommitment FindByType(
    ServiceCommitment.Type type,
    string subType
)
```

)

Parameters

type

Type: ServiceCommitment.Type

Namespace: ManTech.Usps.RateEngine.Entity

subType

Type: string

Namespace: none

Return Value

Type: ServiceCommitment

2.14.4 FindByMailServicesID Method

Description

This method is used to find a service commitment in the collection by specifying the mail services ID.

Syntax

```
PublicServiceCommitment FindByMailServicesID(  
    MailServicesID mailServicesID  
)
```

Parameters

mailServicesID

Type: MailServicesID

NameSpace: ManTech.Usps.RateEngine.Entity

Return Value

Type: ServiceCommitment

2.15 ServiceCommitmentCollection Class

2.15.1 Namespace

Usps.RateEngine.ServiceDeliveryExtensions.International.Entity

2.15.2 Base Class

List<International.Entity.ServiceCommitment>

2.15.3 FindByType Method

Description

This method is used to find a service commitment in the collection by specifying the commitment type.

Syntax

```
public ServiceCommitment FindByType(  
    ServiceCommitment.Type type  
)
```

```
public ServiceCommitment FindByType(  
    ServiceCommitment.Type type,  
    string subType  
)
```

Parameters

type

Type: ServiceCommitment.Type
Namespace: ManTech.Usps.RateEngine.Entity

subType

Type: string
Namespace: none

Return Value

Type: ServiceCommitment

2.15.4 FindByMailGroupCode Method

Description

This method is used to find a service commitment in the collection by specifying the group code.

Syntax

```
Public ServiceCommitment FindByGroupCode(  
    string groupCode  
)
```

Parameters

groupCode

Type: string

Return Value

Type: ServiceCommitment

3 Document Control

3.1 Amendment List

Date	Section	Amendment Description	Author