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Street Search Cloud Service: Programmer's Quick Start

Overview

Take the guesswork out of confirming street names. Street Search Web service provides direct access to the National Data files for the ability to generate street suggestions for undeterminable addresses, reducing undeliverable mail pieces, wasted postage, and lost communications.

You can use Street Search to:

- Match a street name or partial street name against a city name or ZIP Code.
- Match incorrect or misspelled addresses to the valid range.
- Help clean up contact information.

Street Search matches a street name or just a partial street name and returns any valid addresses that match that pattern.

Used in conjunction with Address Object, Street Search can be used to match incorrect or misspelled street names, list possible ranges for a street or a highrise and generate probable suggestions for end users to select.

For example, if "123 Main" matches both "123 Main St" and "123 Main Ave" in the same ZIP Code. Address Object would return a multiple match error. Street Search can return all records that match that pattern in the same ZIP Code, allowing you to correct a partial or inaccurate address record that would otherwise result in an undeliverable mail piece.

The records that Street Search returns describe ranges of delivery address, not necessarily specific individual addresses. Therefore, Street Search cannot be used to construct address records from partial data. It can be used to verify that a submitted address falls within a valid range of known addresses (and thus is probably a deliverable address). Alternately, it can used to suggest alternate spellings for a street name or possibly alternate ZIP codes within the same city when the Address Object service cannot verify a submitted address.

FIELDS INPUT AND OUTPUT FROM THE SERVICE

INPUTs	**Description**
Transmission Reference	A unique string value identifying the request
Record ID	Unique ID if processing multiple records
Customer ID	License String from Melissa Data
OptInRangeOnly	Setting to "True" enables the 'Street In Range' search option
AddressLine	Street Address
City	City
State	State Abbreviation
Zip	5-digit ZIP
Country	Country

OUTPUTs	Description
Version	Current version of Street Search.
Transmission Reference	A unique string value identifying the request.
Results	Results (status of the search).
Total Records	Number of street records returned.
StreetRecord	Property containing address details.
Record ID	Unique ID if processing multiple records.
Company	Company Name
FullAddressLine	Complete Address Line
PrimaryRange	Contains elements giving the range of street numbers.
Low	Low value range of the street numbers.
High	High value range of the street numbers.
OddEven	Indicates values in the range are even, odd, or both.
Street	Contains parsed components of the street name.
PreDirection	Geographical directional preceding the street name.
Name	Name of the street containing the current range.
Suffix	Suffix of the street,
PostDirection	Geographical directional that follows the street name.
Suite	Contains the secondary address information, if any.
Name	Proper suite name for addresses in the range.
Low	Lowest suite number in the current range.
High	Highest suite number in the current range.
OddEven	Indicates values in the range are even, odd, or both.
Zip	Contains the ZIP code information.
Zip5	5-digit ZIP code for the street record.
Plus4Low	Lowest ZIP + 4 number in the current range.
Plus4High	Highest ZIP + 4 number in the current range.
CarrierRoute	4-character carrier route code for the street record.
Urbanization	Contains the urbanization information, if any.
Code	6-digit code number for the urbanization.
Name	Name for the urbanization.
AddressType	1-character value indicating the type of address returned.
LACSIndicator	LACS indicator for the street record.
BaseAlternateIndicator	Base alternate indicator for street record.

License String

You should have been provided an encrypted and unique license string or Customer ID from Melissa Data. This is necessary for including with each request to the Street Search Cloud Service. This value should be put into the CustomerID element in each web service request.

If you do not have a license string, please contact your Melissa Data sales representative at 1-800-MELISSA (1-800-635-4772).

Sample REST Requests

1. https://streetsearch.melissadata.net/v2/REST/Service.svc/doStreetSearch?id=12345678&opt=true&a=22382%20Avenida%20Empresa&city=Rancho%20Santa%20Margarita&state=CA&zip%20=92688

Sample XML Response


```
<?xml version="1.0" ?>
<ResponseArray xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <Version xmlns="urn:mdWebServiceStreetSearch">2.0.20</Version>
  <TransmissionReference xmlns="urn:mdWebServiceStreetSearch">Testing: DQWS SOAP Sample Code implementation
using single record input.</TransmissionReference>
  <Results xmlns="urn:mdWebServiceStreetSearch">SS02</Results>
  <TotalRecords xmlns="urn:mdWebServiceStreetSearch">30</TotalRecords>
  <StreetRecord xmlns="urn:mdWebServiceStreetSearch">
        <RecordID>1</RecordID>
        <Company />
        <PrimaryRange>
              <High>22398</High>
              <Low>22300</Low>
              <OddEven>E</OddEven>
        </PrimaryRange>
        <Street>
              <PreDirection />
              <Name>EMPRESA</Name>
              <Suffix>AVDA</Suffix>
              <PostDirection />
        </Street>
        <Suite>
              <Name />
              <High />
              <Low />
              <OddEven />
        </Suite>
</StreetRecord>
```

Street Search Cloud Service URLs [Street Search Cloud Service Endpoint URLs]

Choosing a Web Service Protocol

The Melissa Data Street Search Cloud Service supports REST, JSON, XML, and SOAP. For the undecided, here are some Pros and Cons of one Web Service protocol over the other.

REST

Pros: REST is lightweight and relies upon HTTP to do its work. If you don't need a strict API definition, this is the way to go. REST is also format-agnostic so you can use XML or JSON as responses.

Cons: REST can only be used for sending of single records and doesn't support strict contracts or more involved security. The Response is an XML or JSON document.

XML

Pros: XML allows record set structures of more than one record at a time and has very good support with most languages and browsers. Supports namespaces.

Cons: Developers need to use tools to serialize/de-serialize the XML structure.

JSON

Pros: JSON relies on simple object serialization based on JavaScript's object initialization. It is very simple to use with JavaScript and easily parsed and understood by developers.

Cons: No support for formal definitions. No namespace support. Not much support in Web Service clients with some platforms.

SOAP

Pros: SOAP (using a WSDL) is a heavy-weight XML standard that is centered around document passing. The advantage with this is that your requests and responses can be very well structured.

Cons: SOAP documents are very verbose and hard to consume without a SOAP toolkit and generally carry more overhead.

Basic Order of Operations (Pseudo Code)

1. Choose SOAP, XML, or the REST service.
2. Create an instance of the request object.
3. Populate the request element CustomerID with your Product License.
4. Set the options for the Web service.
5. Call the method and pass in the request to the service using the SOAP endpoint for SOAP request and the WEB endpoint for XML or JSON requests.
6. Examine and parse the response from the reply object back from the service.
7. Interpret the results.

Interpreting Results

Melissa Data's Street Search Cloud Service uses Results Codes to determine if a street is found.
The Melissa Data Cloud Services use the following Results conventions:

1. CLOUD SERVICE ERRORS: SExx
2. CLOUD TRANSMISSION ERRORS: GExx
3. STREET SEARCH STATUS CODES: SSxx
4. NO STREET ERROR CODES: DExx

For Example: An SS01 Result Code means the street search returned one or more results within the designated range.

The DE01-DE02 Result Codes will explain the no records found.
Please check the documentation for any additional information on Results.

Results Codes

The service returns a series of results codes to tell you of the status of your request.

For a full list of the Results Codes returned by the Street Search Cloud Service, see Street Search Result Codes.

Sample Code

Fully working examples are available on the wiki pages:
Click here to go to the Street Search Cloud Service Wiki Page.

Wiki Page

A product support Wiki is available for your convenience. In the Wiki, you will find documentation about the service in more detail.
Click here to go to the Street Search Cloud Service Wiki Page.

Misc. Considerations

Firewall

If you are behind a firewall, you may need to allow specific IP addresses access in order to communicate with the service. For a full list of IP Addresses, see IP Address Information.