

# Address Validation Web Service

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<http://aims.jocogov.org>



**Automated Information Mapping System**  
Geographic Data & Service Provider for Johnson County, Kansas



# Abstract

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Johnson County AIMS has developed an internet web service that allows programmers to validate an address within Johnson County, Kansas. The web service validates against a county-wide dataset of address points. Addresses may be passed to the web service either atomized or as a whole string. The web service then parses the address, if needed, and returns an atomized list of matching addresses, along with X and Y coordinates of the address point. Application developers can use the web service for many different applications where a valid address is desired.

# A Useful Dataset

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## Why did we build the Address Web Service?

AIMS has managed an address dataset that represents all the addresses within Johnson County Kansas. We work with the cities to collect and maintain the dataset. The address dataset is stored as a SDE feature class and a database table.

We wanted to promote use of the address dataset, and with the creation of the Address Web Service, we believe we have done this.

# What is a Web Service?

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Simply stated, a web service is...

A software system that provides a service to its consumers over a network using web standards such as SOAP, XML and HTTP.

The power of a web service is that it can be used by many programming languages running on many different systems.

# Address Web Service

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- Built using Visual Basic .NET
- Runs on IIS
- Accessible to the Internet

# Methods

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The web service includes the following methods to validate an address:

- ValidateAddressLine
- ValidateAddressWithLocation
- ValidateAddressWithoutLocation

# Usage

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The Address Web Service is a tool for programmers to validate an address.

After calling one of the service's methods, an array of Address structures is returned. This represents the addresses that matched the address passed in.

# Address Structure

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- APID
- Street Number
- Predirection
- Street Name
- Street Type
- Sec. Unit
- City
- State
- ZIP Code
- X
- Y
- AddressLine
- CityLine



# Benefits

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## Address ...

- exists
- is complete
- is in a good format
- can be placed on a map
- can be linked to property

# Current Use

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- Mapping of septic systems
- Mapping of child care providers
- Validate address for Housing Application

# Septic Database

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- Tracks septic tank permits, resale, complaints
- Uses Microsoft Access 2003
- Microsoft Office 2003 Web Services Toolkit
- Tracks septic tanks by address

# Septic Database

## Before Address Web Service

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- Imported the Access tables into SQL Server
- Geocoded the addresses
- Created a map from the geocoded addresses
- Largely a manual process

# Septic Database

With Address Web Service

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- Validate address at point of entry
- Capture X, Y from web service
- Map creation is now automated
- Report number of points in different watersheds

# Housing Application

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- Need to track homes requesting local and federal assistance for home improvement.
- Requests for assistance are limited per home.

# House Application

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- Validates the address of the home using the web service.
- Stores the unique ID and property ID associated with the address.

The unique ID and property ID allow the application to track the number of times a home receives assistance.

# Future

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- More internal department use
  - DMV: Create an application that validates an address and shows its location on a map along with front elevation photos.
- External use
  - Validate customer addresses for businesses.
  - Provide mapping of addresses.



# Contact Information

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