

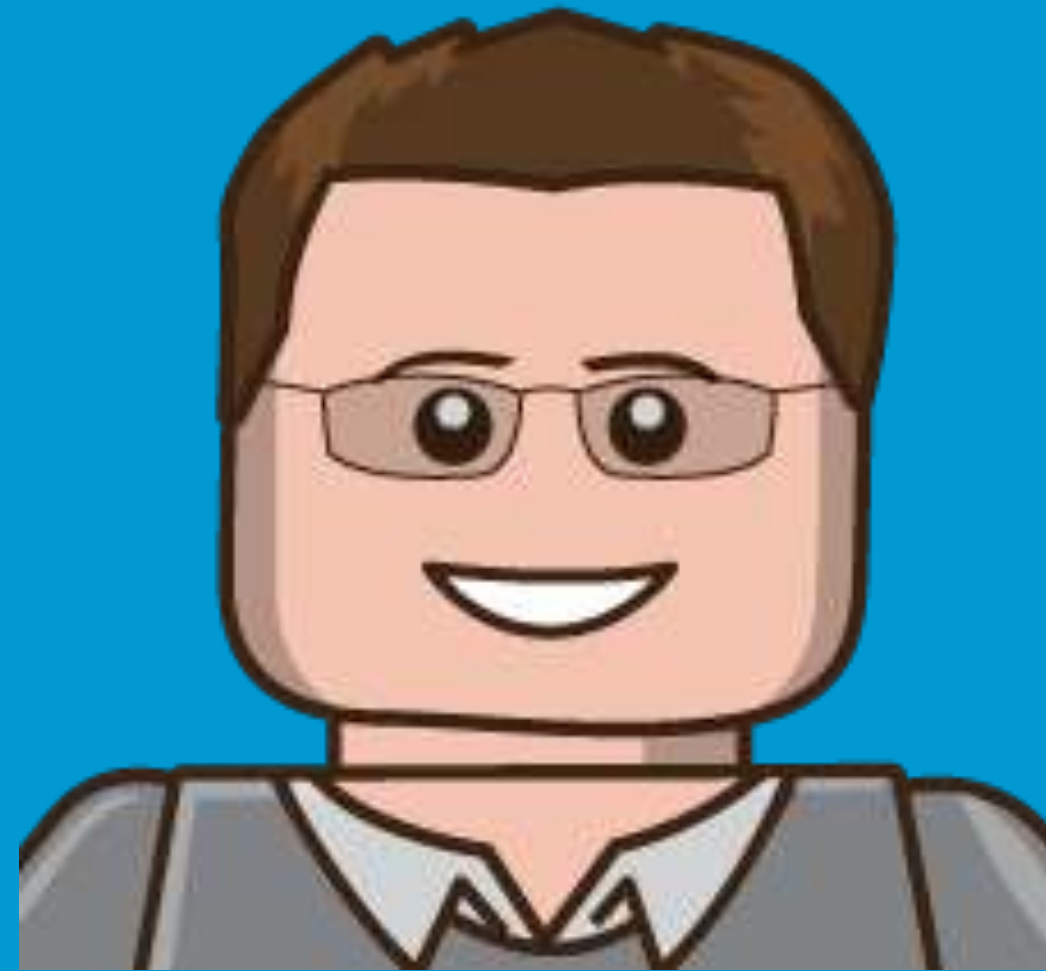
# Spatially enable WordPress with WP-GeoMeta-Lib



# Spatially enable WordPress with WP-GeoMeta-Lib

1. Introduction to WordPress
2. WP-GeoMeta-Lib - What/Why/How
3. WordPress is a land of opportunity

# Who am I?



Michael Moore

   @stuporglue

michael.moore@luminfire.com




<https://LuminFire.com/gis>



# Spatially enable WordPress with WP-GeoMeta-Lib

1. Introduction to WordPress
2. WP-GeoMeta-Lib - What/Why/How
3. WordPress is a land of opportunity



 Dashboard

 Posts


All Posts


Add New


Categories


Tags


 Media


 Forms


 Pages


 Comments

 Sign-up Sheets


 Knowledgebase


 Genesis


 Appearance


 Plugins 2

 Users

 Tools

 Settings


 Custom Fields


 BackupBuddy

[WordPress 4.8.1](#) is available! [Please update now.](#)

## Add New Post

Enter title here











 Add Media











 Add Form

Visual

Text

Paragraph ▾

**B** *I*          

ABC          

This is a **Visual Editor!**

p  
Word count: 5

Theme SEO Settings


Screen Options ▾


Help ▾


Publish ▴

Save Draft

Preview

 Status: **Draft** [Edit](#)

 Visibility: **Public** [Edit](#)

 Publish immediately [Edit](#)

Publish

Categories ▴

All Categories

Most Used

Select / Deselect All

☐ Meetup Notes

☐ Uncategorized

[+ Add New Category](#)

Tags ▴

Add



Search WordPress.org



[Showcase](#) [Themes](#) [Plugins](#) [Mobile](#) [Support](#) [Get Involved](#) [About](#) [Blog](#) [Hosting](#)

[Download WordPress](#)

# Plugins

Extend your WordPress experience with 51,648 plugins.

Search plugins



O diretório de plugins também está disponível em [Português do Brasil](#).



+




# Pros of WP: Ease of Use

- Famous 5-Minute Install
- 1-Click installers on many web hosts
- No dev skills needed for admins
- TONS of tutorials
- Lots of online support (api, forums, meetups, etc.)



# Pros of WP: Ubiquitous



Plan	Basic
12 Month Term	\$8.99
24 Month Term	\$8.49
36 Month Term	\$7.99

- On the cheapest of hosts
- Developers and Themers are plentiful
- “Nobody ever got fired for choosing WP”

# Pros of WordPress: Often the Right Tool (for building websites)

- Good bang for your buck
- Has most needed functionality (w/ plugins)
- Known Quantity

# Cons of WP: GIS Support

- Few GIS related plugins
- Few maintained PHP GIS libraries
- Lack of community GIS awareness

# Cons of WP: All Meta Values are Text

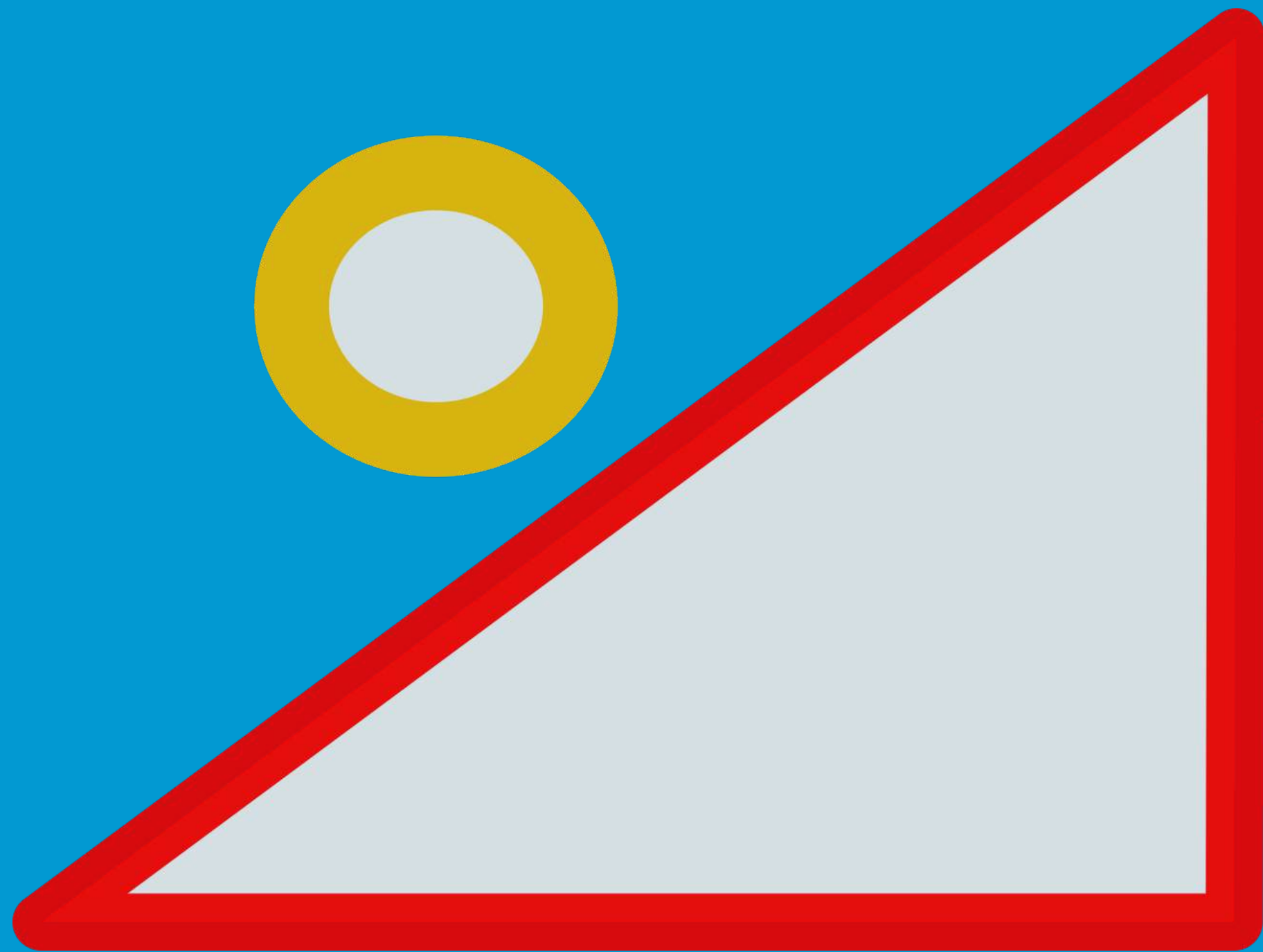
meta_id	post_id	meta_key	meta_value
17	3	Name	Steve
18	3	Birthdate	01/01/80
19	3	Address	123 Main St.
20	3	City	Duluth
21	3	State	MN
22	3	Age	37
23	4	Name	Frank
24	4	Birthdate	02/02/90
25	4	Address	321 1st Ave
26	4	City	Superior
27	4	State	WI
28	4	Age	26

LONGTEXT

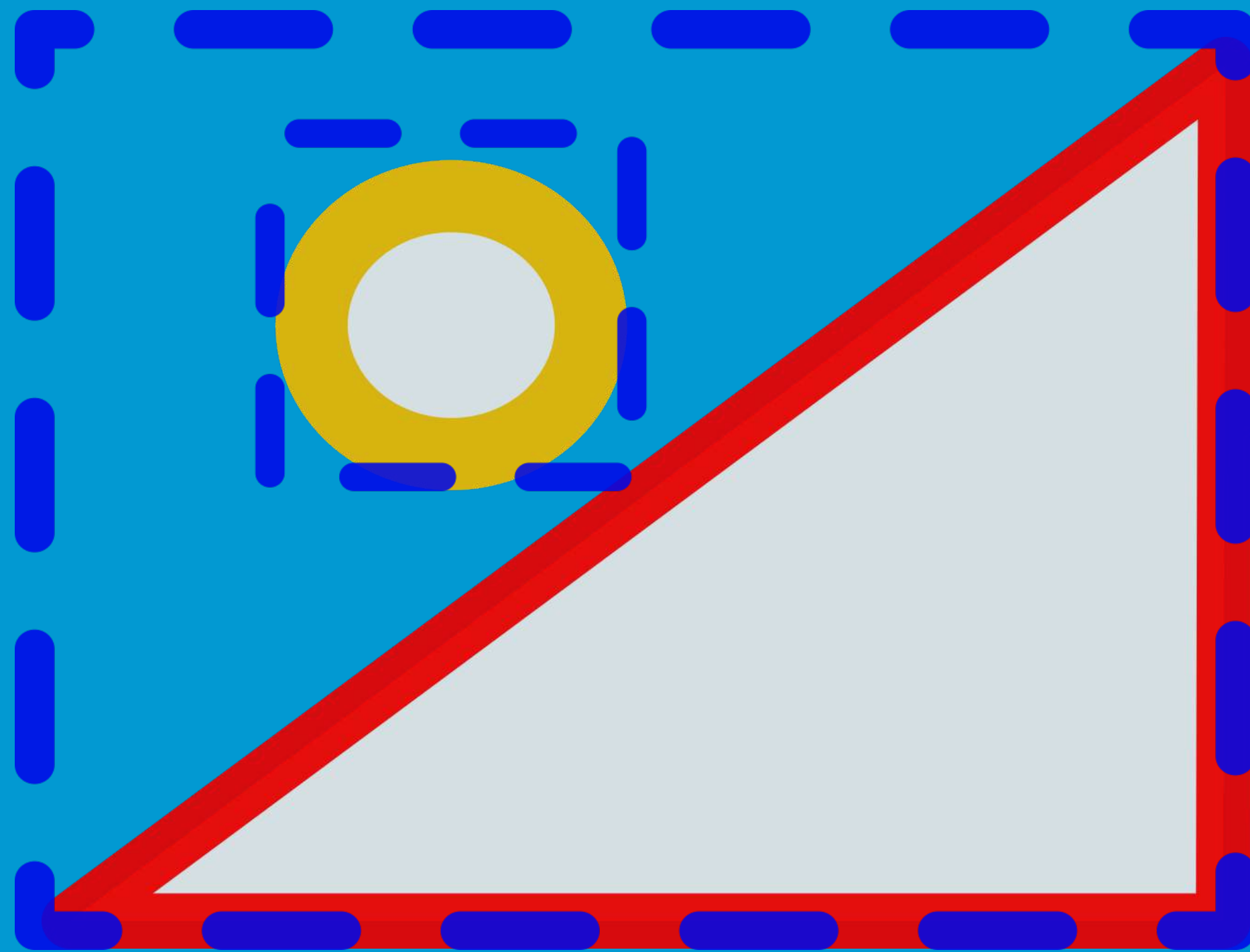
String/Text  
Date  
Number



# MySQL: Do These Shapes Intersect?



# MySQL: Do These Shapes Intersect?



## MySQL 5.6

Spatial Intersect  
`ST_INTERSECTS()`

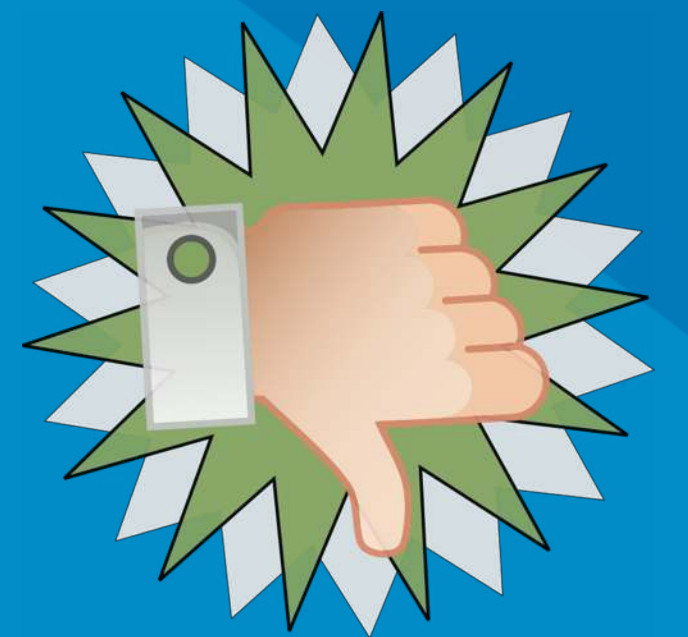
**No**



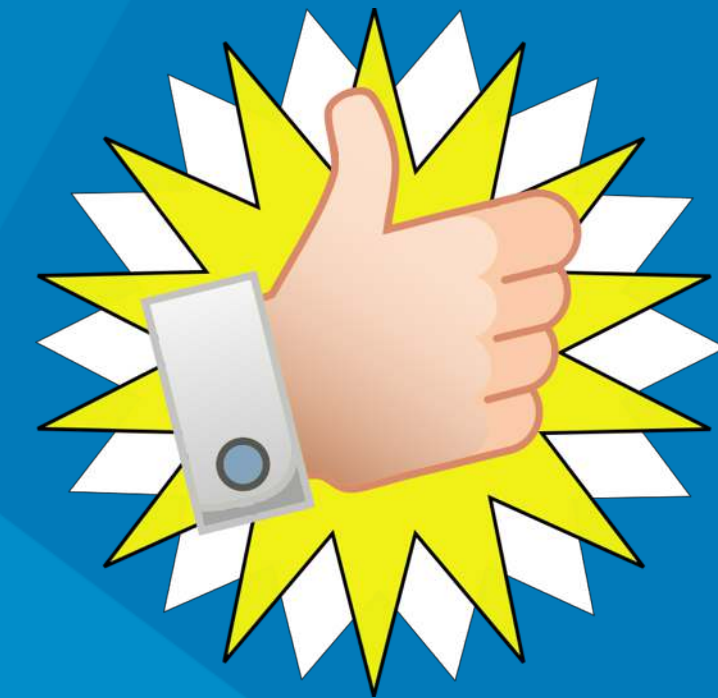
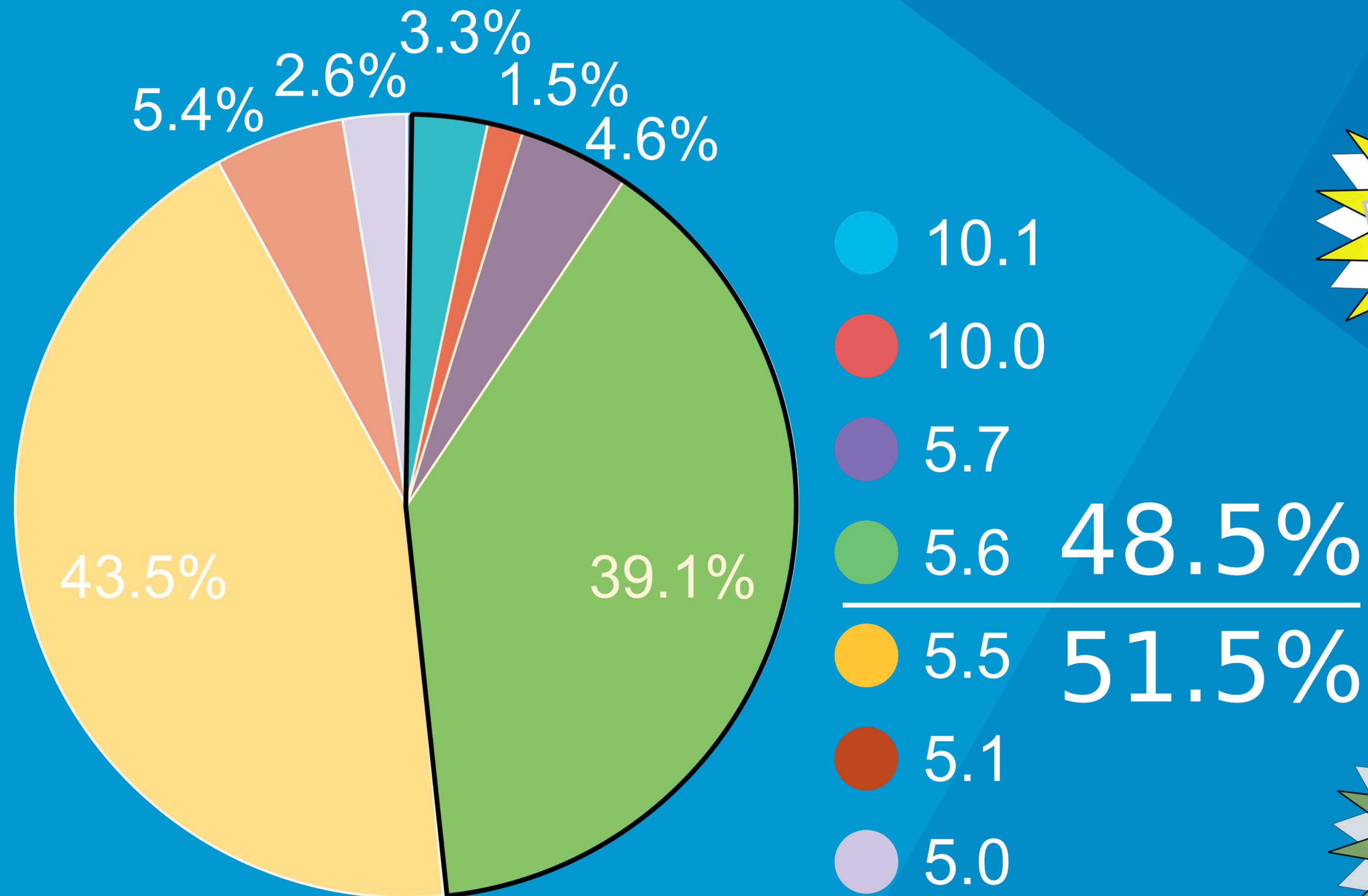
## MySQL 5.5

BBOX Intersect  
`INTERSECTS()`

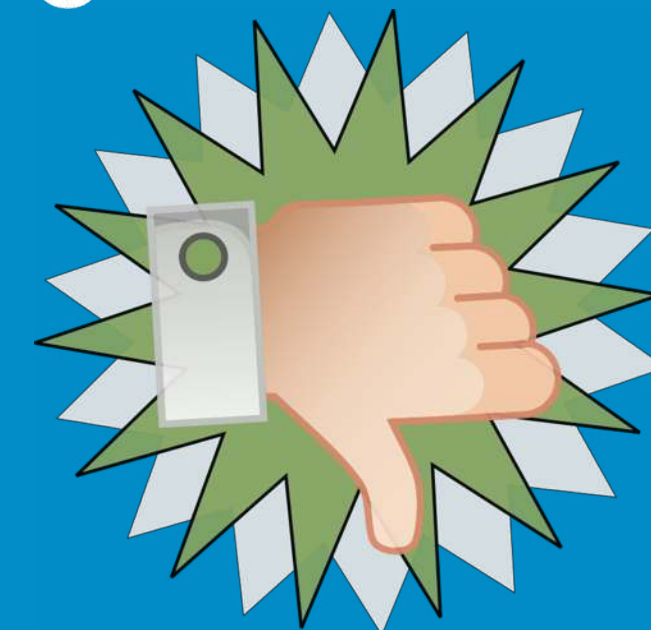
**Yes**



# Cons of WP: MySQL



~~29% (11/2016)~~





+



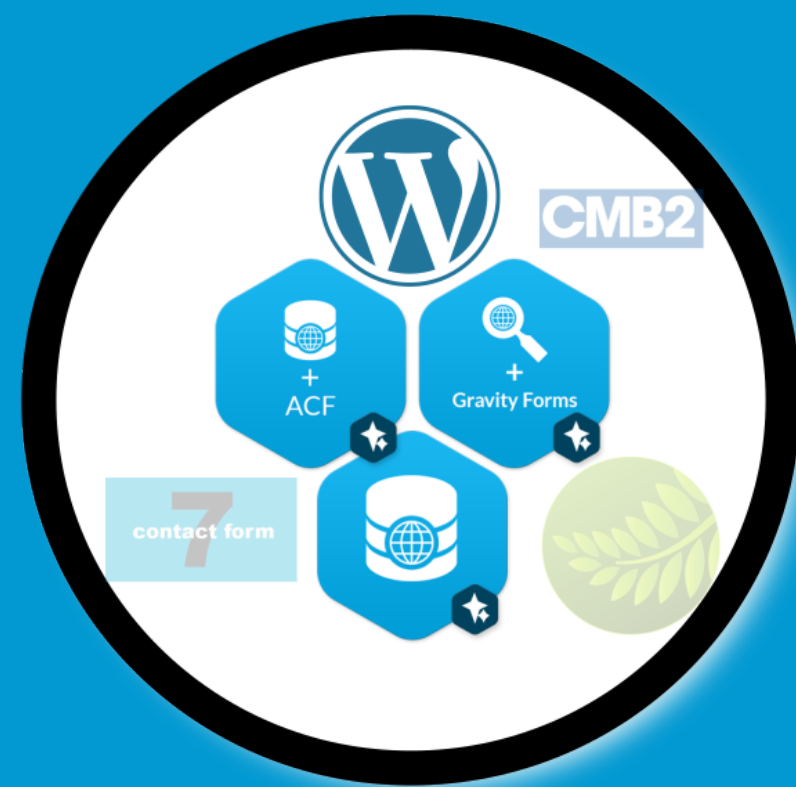


# Spatially enable WordPress with WP-GeoMeta-Lib

1. WordPress is great
2. WP-GeoMeta-Lib - What/Why/How
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# Why does WP-GeoMeta-Lib exist?

Collect



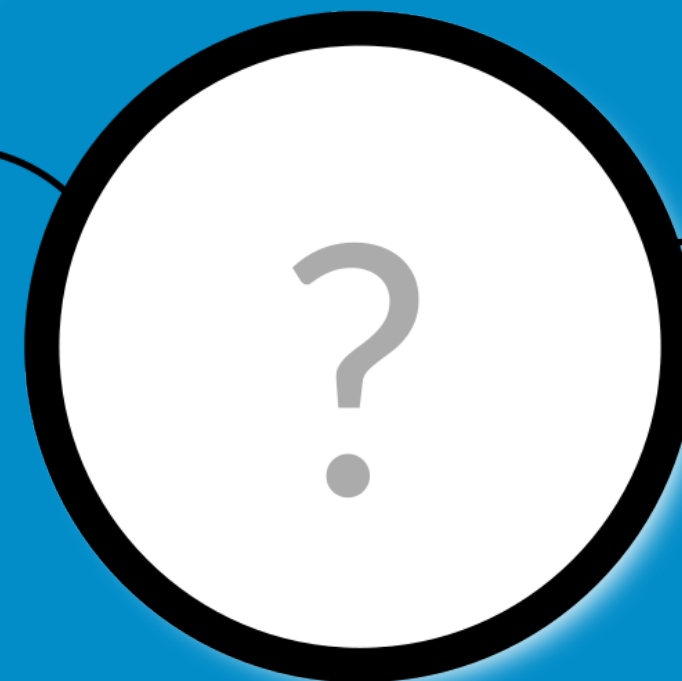
Store



Query



Display



Analyze

# What Is WP-GeoMeta-Lib

<https://github.com/BrilliantPlugins/wp-geometa-lib>

- PHP Library
- Include it in WP plugins
- Handles saving and querying spatial data

WordPress

Your  
WP Plugin



Non-Spatial  
WP Plugin

Other  
WP Plugin



# How Does It Work?

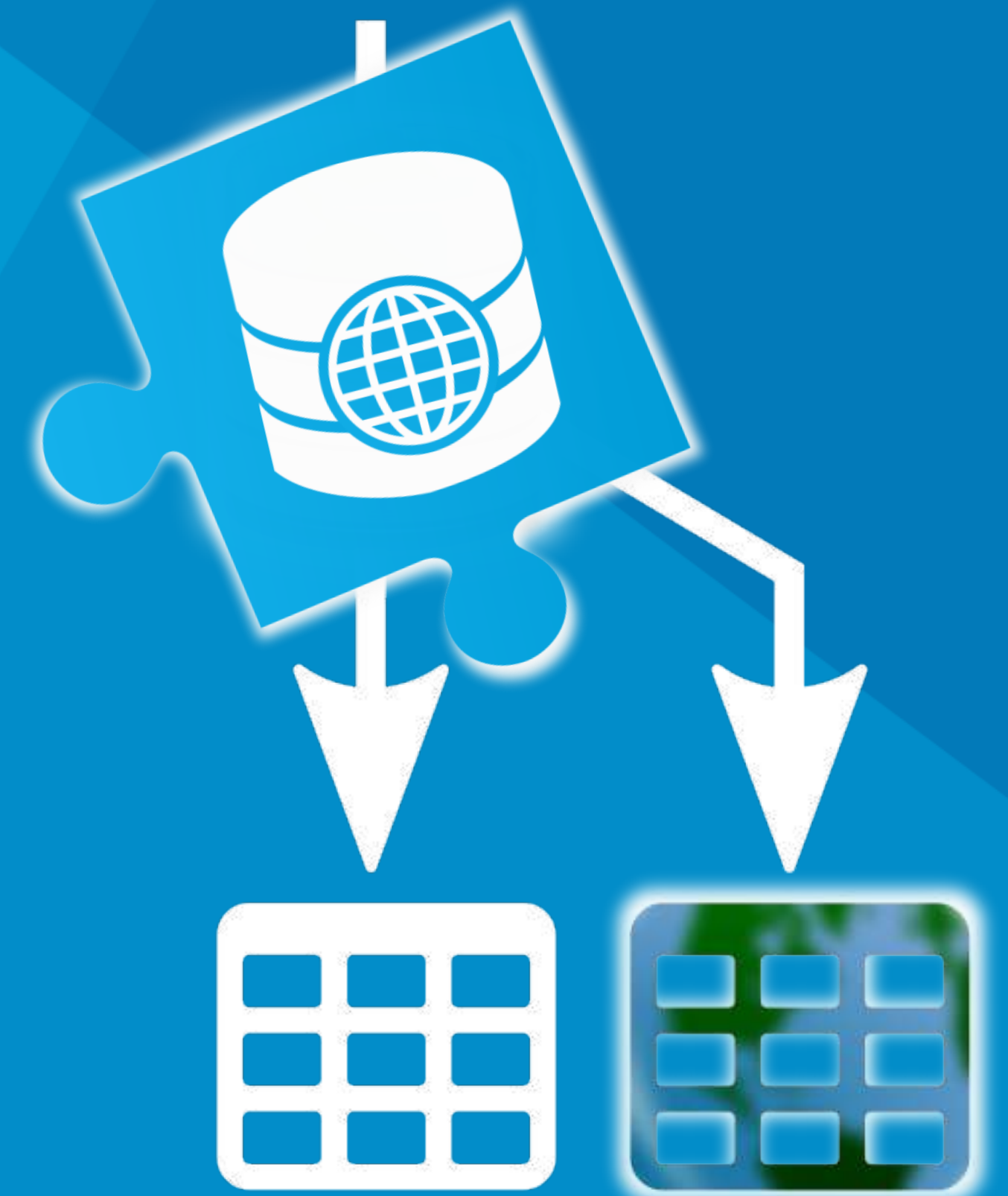
<input type="checkbox"/>	<b>wp_commentmeta</b>	InnoDB	utf8mb4_unicode_520_ci	16,384	32,768
<input type="checkbox"/>	<b>wp_commentmeta_geo</b>	MyISAM	utf8mb4_unicode_520_ci	0	4,096
<input type="checkbox"/>	<b>wp_postmeta</b>	InnoDB	utf8mb4_unicode_520_ci	3,686,400	32,768
<input type="checkbox"/>	<b>wp_postmeta_geo</b>	MyISAM	utf8mb4_unicode_520_ci	1,234,124	23,552
<input type="checkbox"/>	<b>wp_termmeta</b>	InnoDB	utf8mb4_unicode_520_ci	16,384	32,768
<input type="checkbox"/>	<b>wp_termmeta_geo</b>	MyISAM	utf8mb4_unicode_520_ci	0	4,096
<input type="checkbox"/>	<b>wp_usermeta</b>	InnoDB	utf8mb4_unicode_520_ci	16,384	32,768
<input type="checkbox"/>	<b>wp_usermeta_geo</b>	MyISAM	utf8mb4_unicode_520_ci	0	4,096



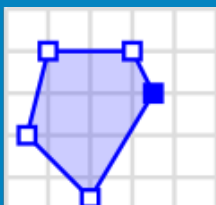
# How Does It Work?

update\_post\_meta( )

When spatial metadata is inserted, it's re-routed and stored in the spatial table instead.



# How Does It Work?

WP\_Query( meta\_value => ST\_Intersect( ) )



SELECT \* FROM 



SELECT \* FROM 

Parts of queries with spatial functions are re-routed to use the spatial tables.

# Spatially enable WordPress with WP-GeoMeta-Lib

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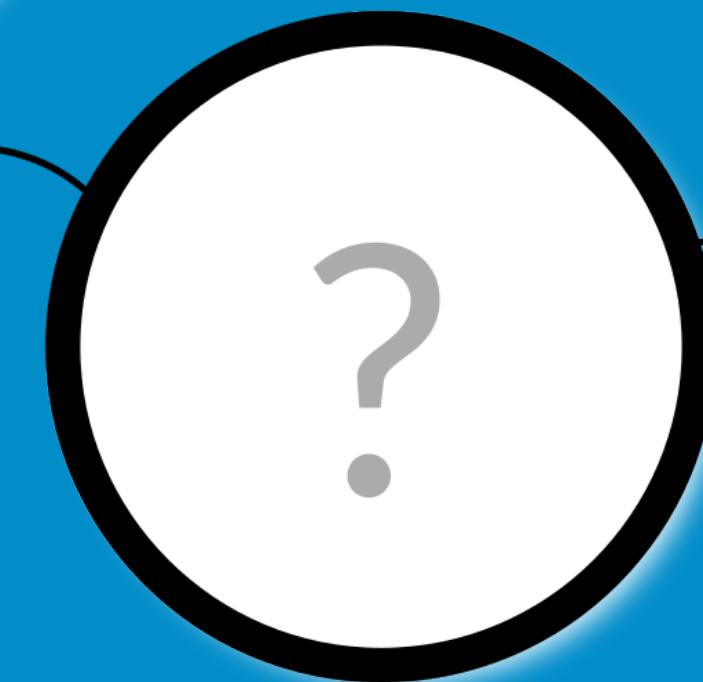
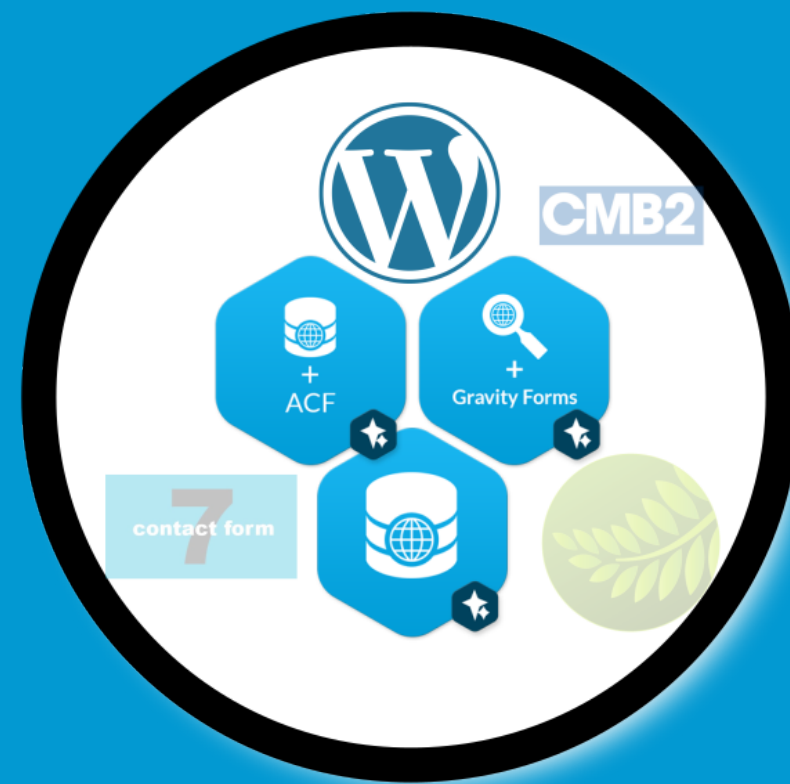
# Opportunity

Collect

Store

Query

Display



Analyze

**WordPress is used by 59.3%** of all the websites whose content management system we know. This is 28.4% of all websites.



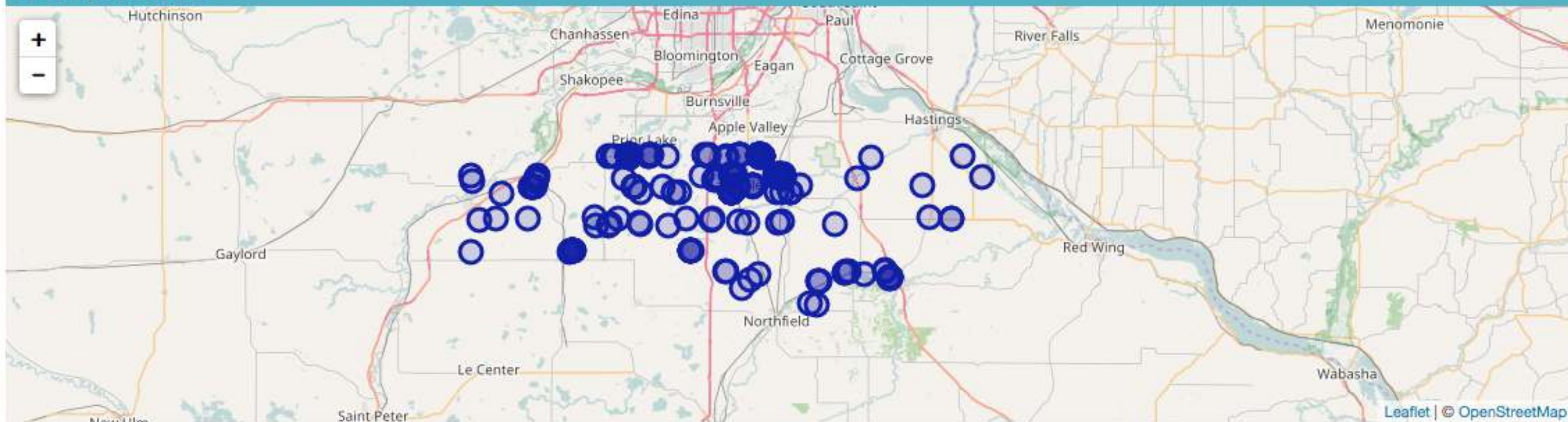
# Plugin: WP-GeoMeta (not -lib)



## WP-GeoMeta

[Your Data](#)[Quick Start](#)[Your Functions](#)[Resources](#)[System Status](#)[Import Data](#)

### Your Spatial Data



### Found Spatial Metadata Types

Type	Meta Key	Number of Records	View Sample Data (500 records max)
DNR Park Boundaries (post)	geom	84	<a href="#">View Data</a> 
Residential Building Permits (post)	building_location	300	<a href="#">View Data</a> 
Users	user_home	33	<a href="#">View Data</a> 



# Brilliant Geocoder for Gravity Forms

## Where did you go to school?

### Where did you go to school?

#### Your Name

Michael Moore  
First Last

#### Graduation Year

2000

#### Current Address

5155 E River Rd  
Street Address  
Fridley MN  
City State / Province / Region  
55421 United States  
ZIP / Postal Code Country

#### Your Location

This field shows the address you entered in the field above.



SUBMIT

Search ...

#### RECENT POSTS

- [New Release](#)
- [Hello world!](#)

#### RECENT COMMENTS

- [A WordPress Commenter](#) on [Hello world!](#)

#### ARCHIVES

- [March 2017](#)
- [November 2016](#)

#### CATEGORIES

- [Uncategorized](#)

#### META

- [Site Admin](#)
- [Log out](#)
- [Entries \[RSS\]\(#\)](#)
- [Comments \[RSS\]\(#\)](#)
- [WordPress.org](#)

# GeoMeta for ACF

- Plugins
- Users
- Tools
- Settings
- Custom Fields
- Collapse menu

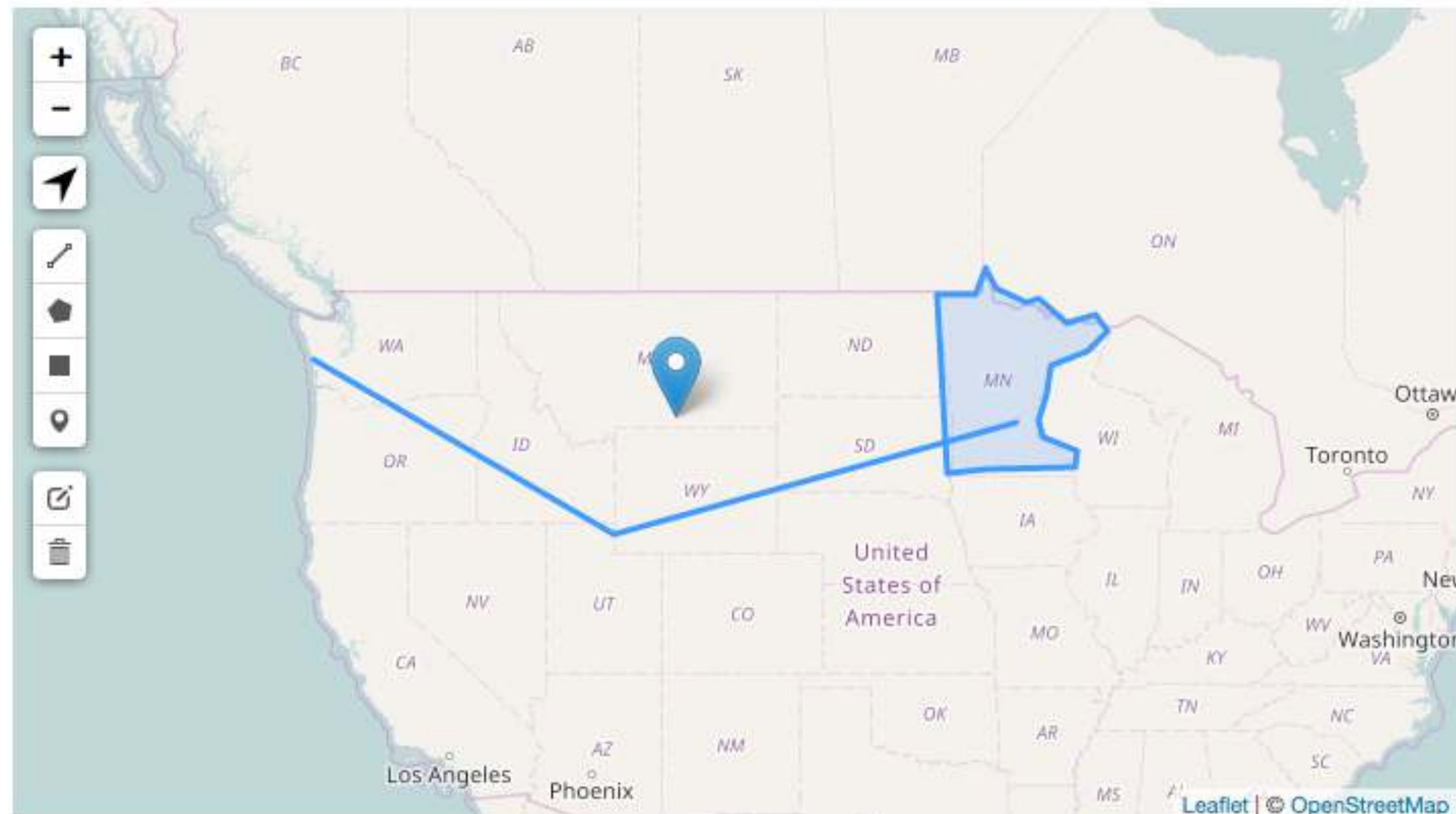
allenum nominati usu no. Pri ad erat veniam dissentiunt. Est dicit  
dissentiunt an, dicta aperiri cum no. Duo te utinam dolores referrentur, eu  
vel movet cetero nostrud. Vix nullam volumus an, pro eu illud graece.

Word count: 156

Last edited by admin on December 19, 2016 at 5:12 pm

## Fields for Posts

### Post Boundaries



Chat

## Categories

All Categories Most Used

☒ Uncategorized

[+ Add New Category](#)

## Tags

Add

Separate tags with commas

[Choose from the most used tags](#)

## Featured Image

[Set featured image](#)

# Spatially enable WordPress with WP-GeoMeta-Lib

1. WordPress is great
2. WP-GeoMeta-Lib - Library for working w/ spatial in WP
3. I should write a WordPress Plugin with WP-GeoMeta-Lib



# Questions



<https://github.com/BrilliantPlugins/wp-geometa-lib>