Getting Started with Maps

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Product Managers, Splunk

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Intro

- **Robb Bittner**
- Product Manager: Splunk Light
- Map Geek

- **Michael Porath**
- Product Manager: Visualization and Analysis
- Visualization Nerd

A Splunk instance walks into a bar…

Format Timeline ∨ — Zoom Out + Zoom to Selection × Deselect 1 millisecond per column

List ∨ Format ∨ 20 Per Page ∨ < Prev 1 2 3 4 5 6 7 8 9 10 Next >

< Hide Fields All Fields

Selected Fields
a host 1
a source 1
a sourcetype 1

Interesting Fields
beer_servings 100+
a country 100+
a index 1
linecount 1
a punct 12
spirit_servings 100+
a splunk_server 1

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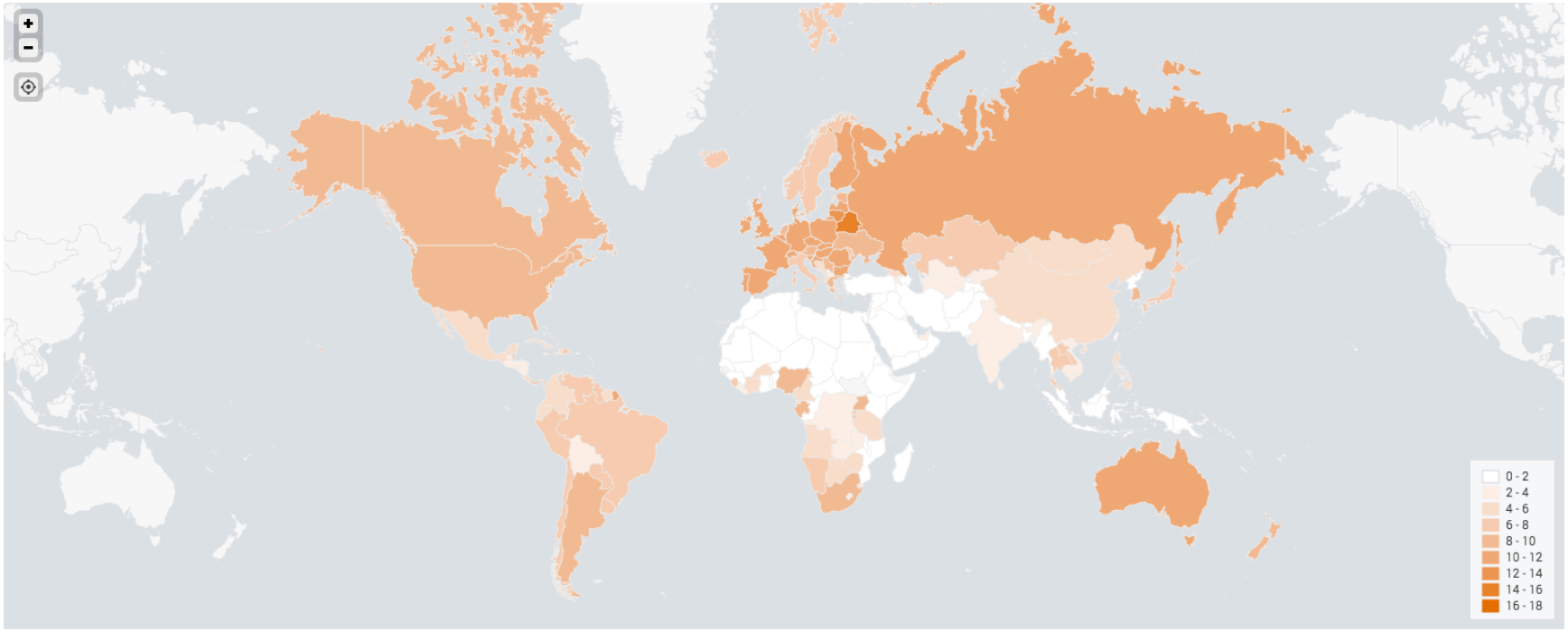
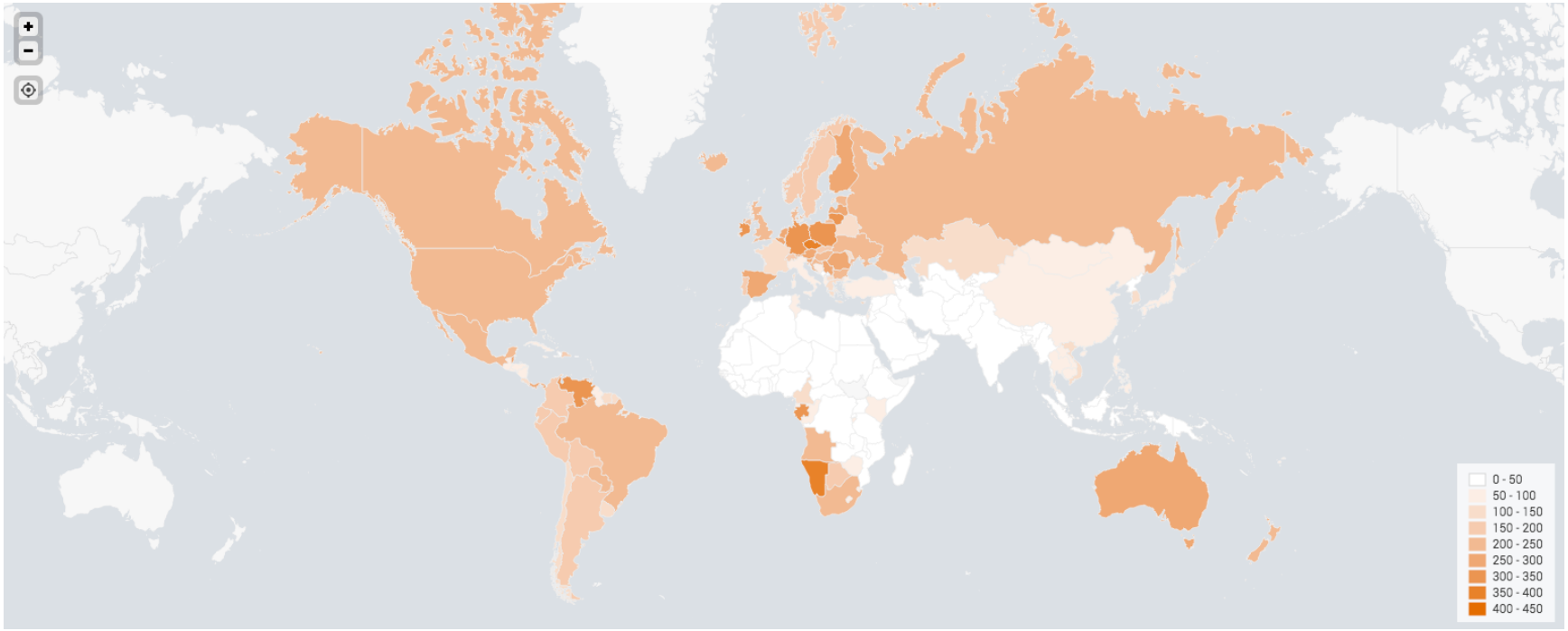
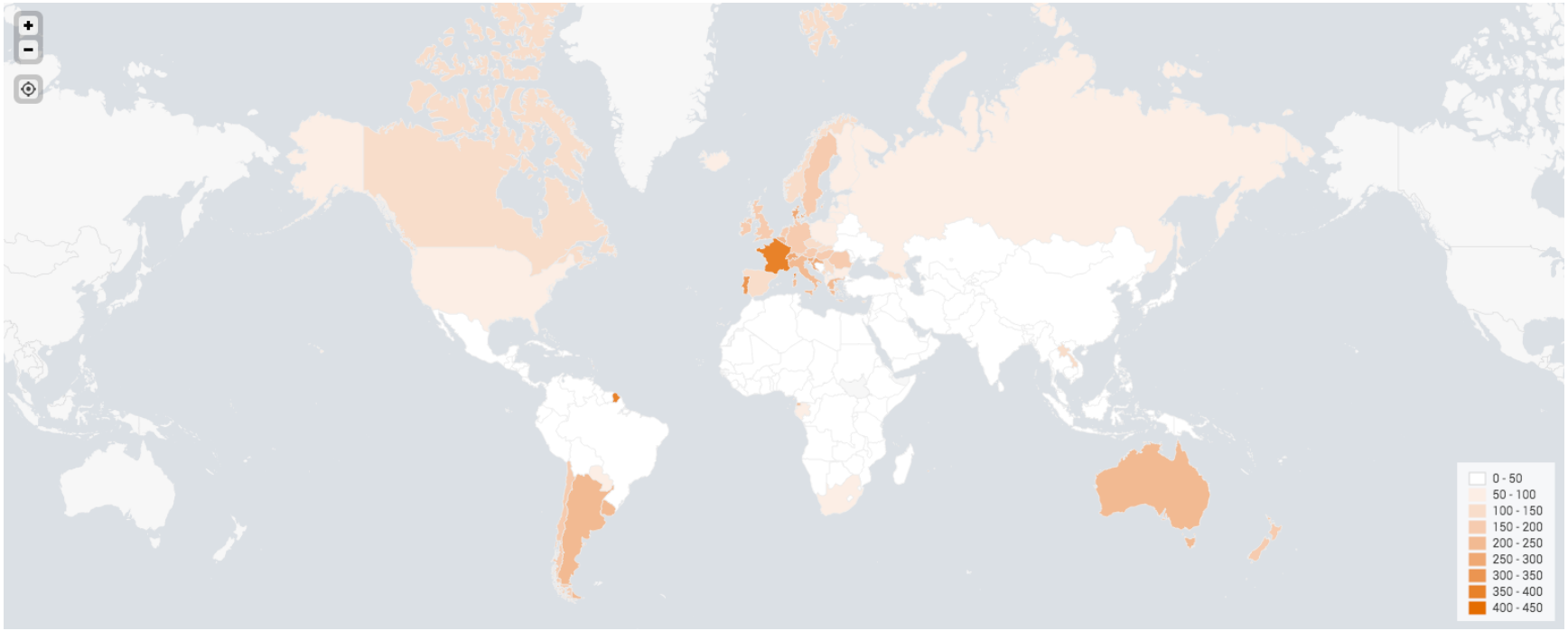
Liters of pure alcohol per capita



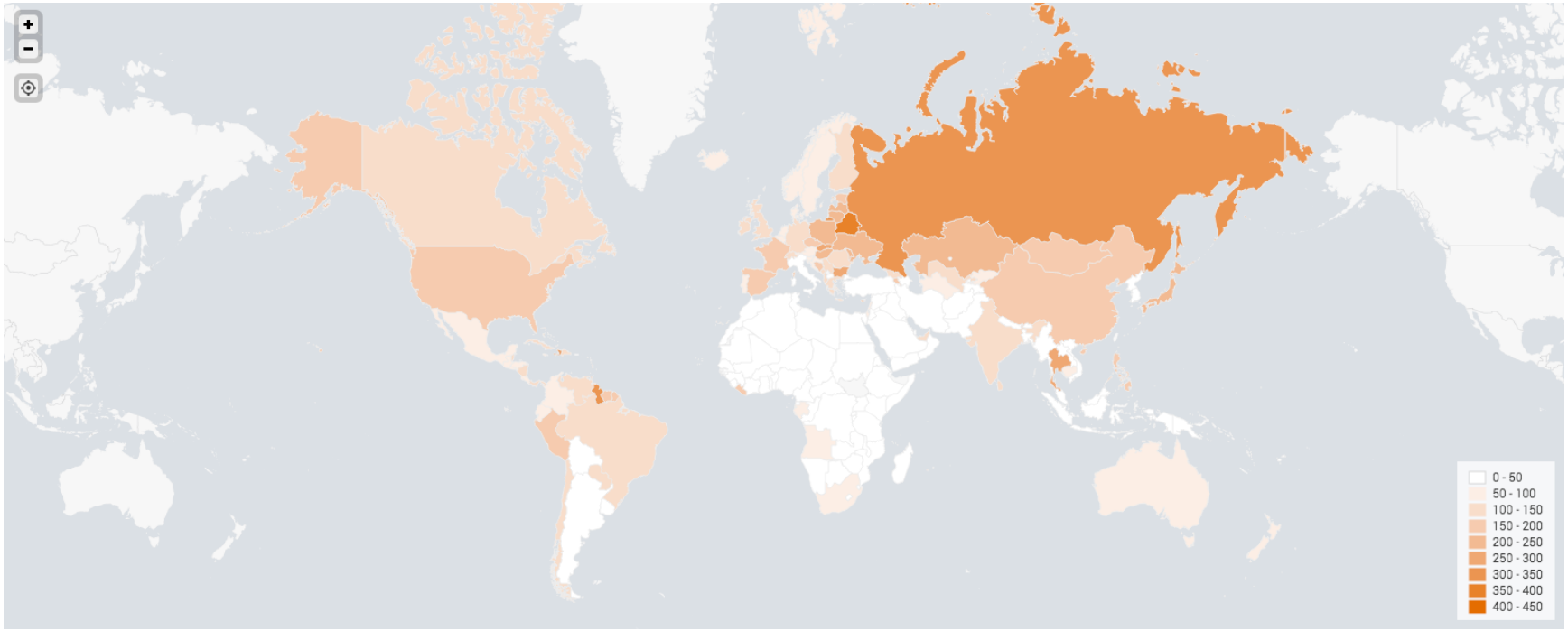
of Beer Servings per year



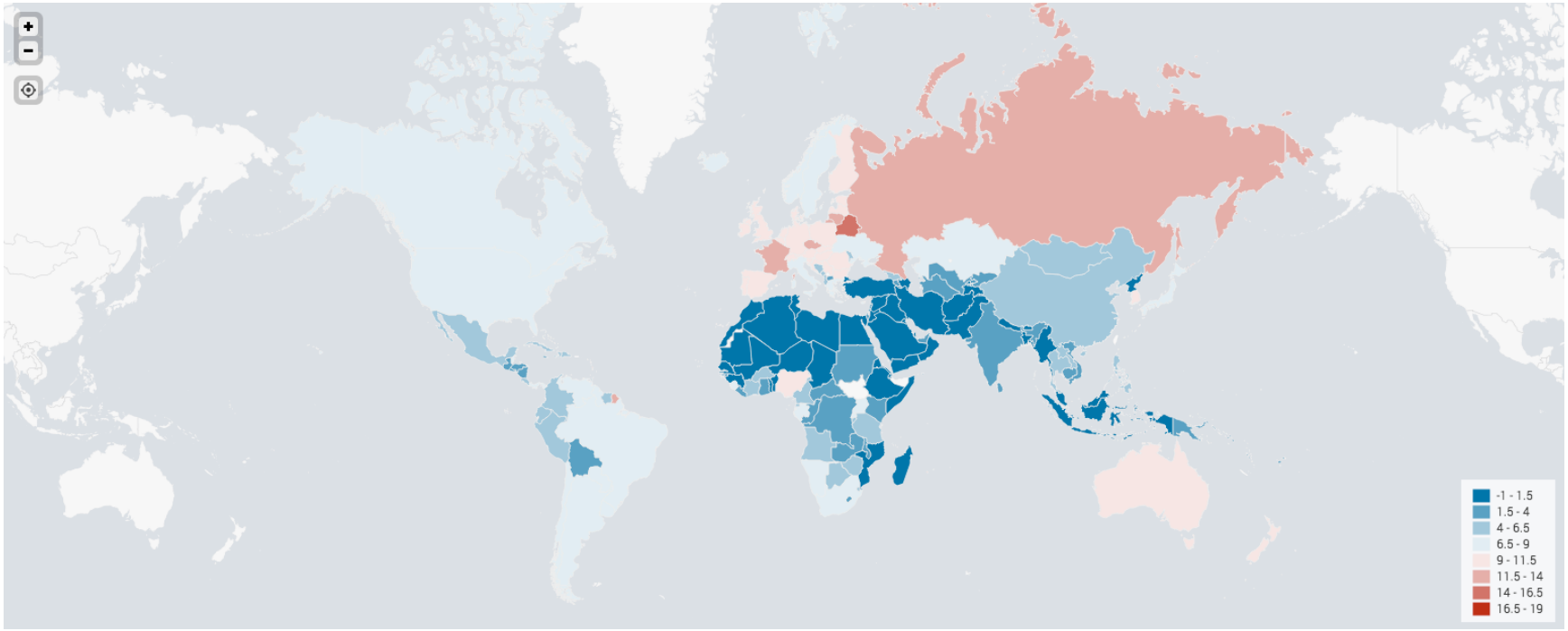
of Wine Servings per year



of Spirit Servings per year

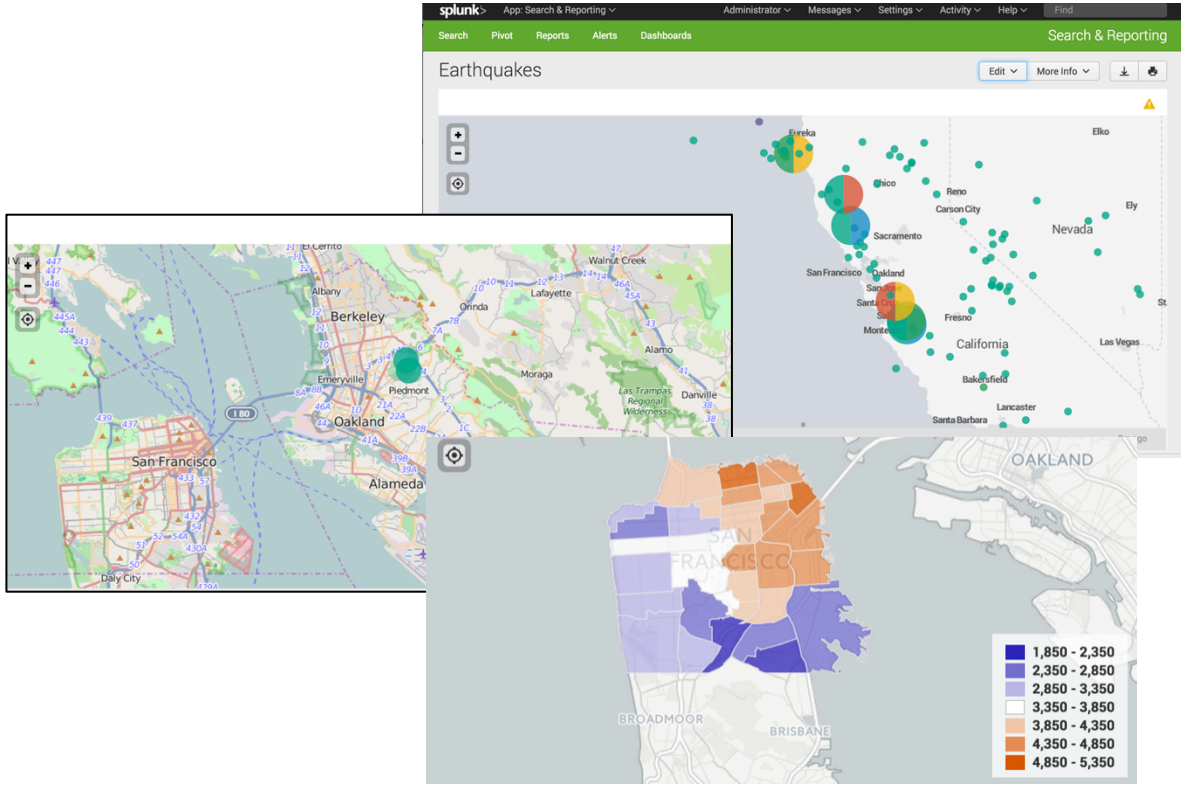


More or less than recommended?

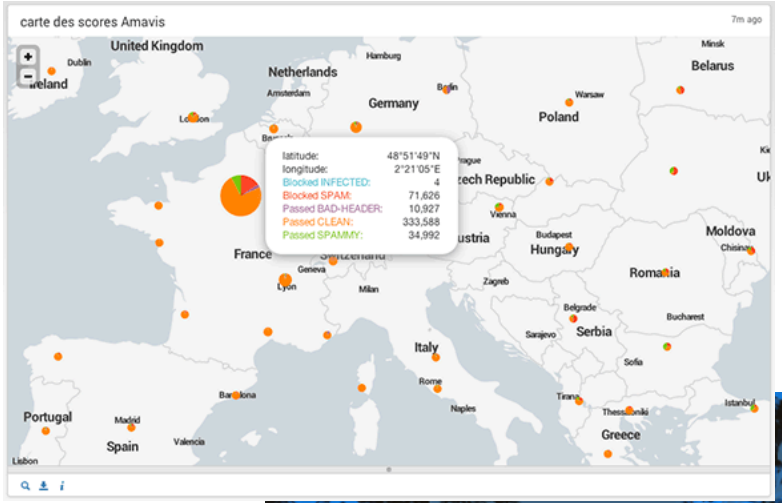


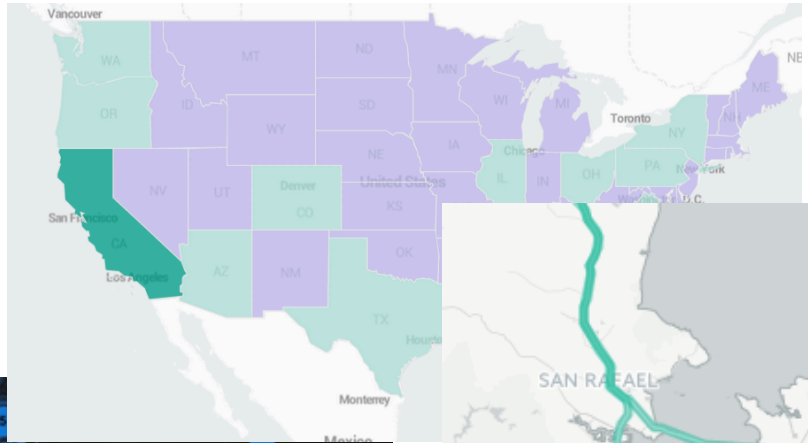
Mapping is easy (really)

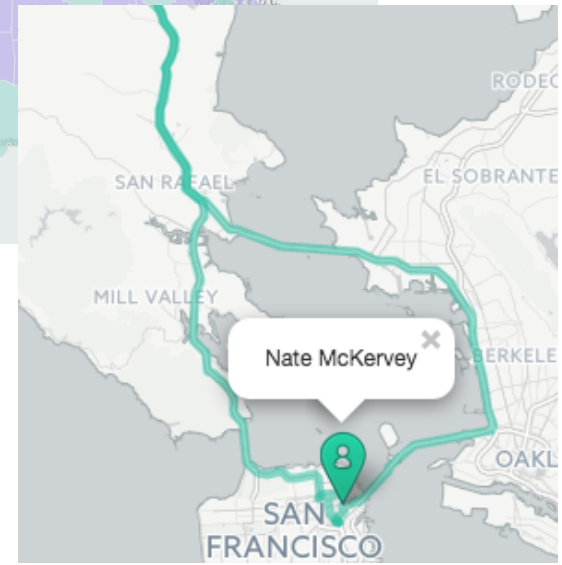
- **DEMO**
- Marker Map
  - Existing Lat/Lon
  - Generated Lat/Lon
- Choropleth
  - Lookup based
  - Aggregation based
- Styling



Mapping Gallery







Elements of Mapping

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Elements of mapping

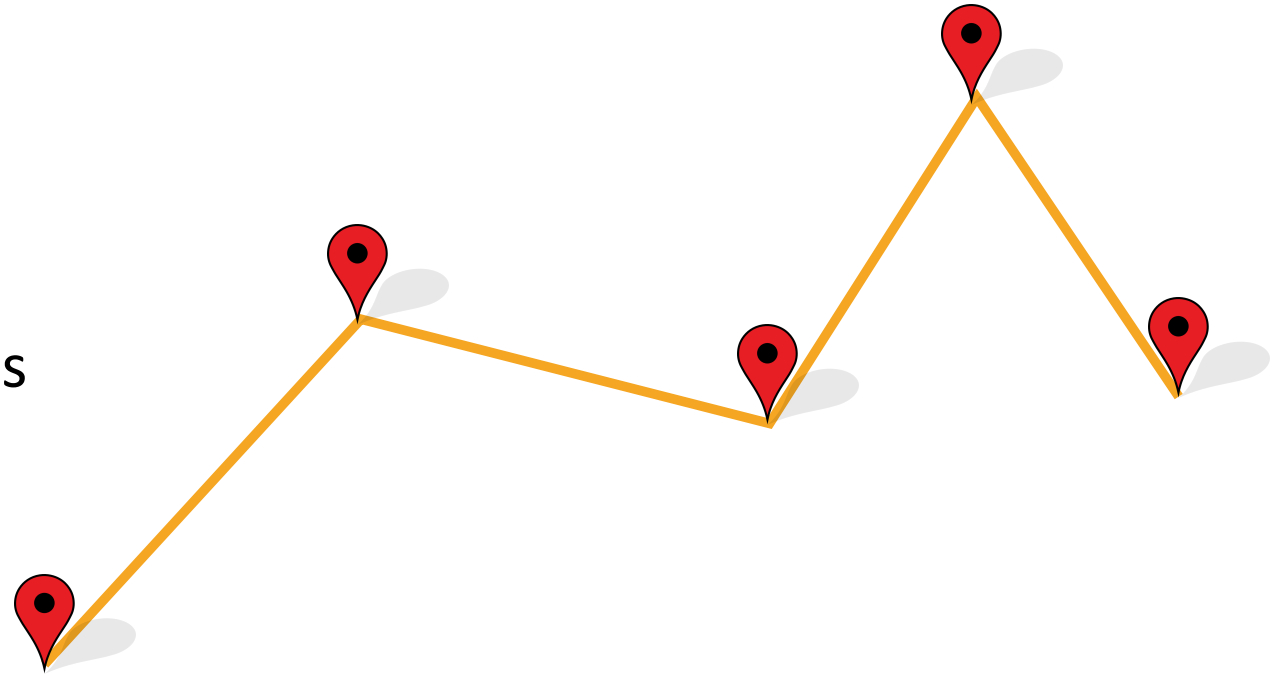
Point

Las Vegas
Longitude: 36.1215° N
Latitude: 115.1739° W

Elements of mapping

Lines

Path
Sequence in Time
Crossing boundaries



Elements of mapping

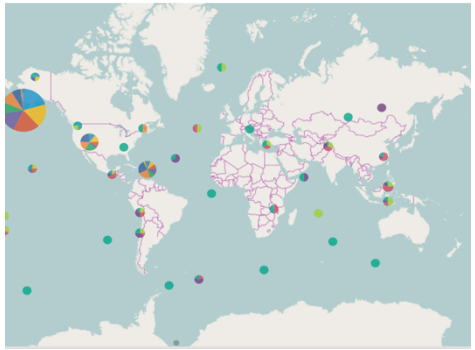
Polygons

Inside/Outside
Entering/Leaving
Lingering
Summarize

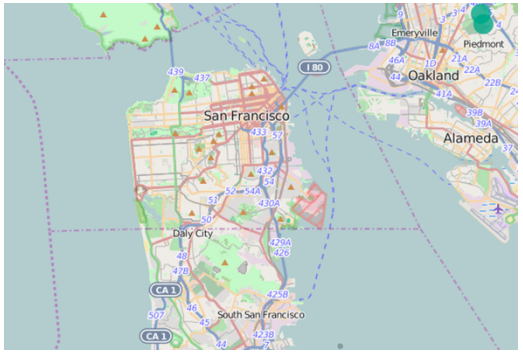
Elements of mapping

Zoom level

1 = World



10 = City



19 = House

Mapping in Splunk

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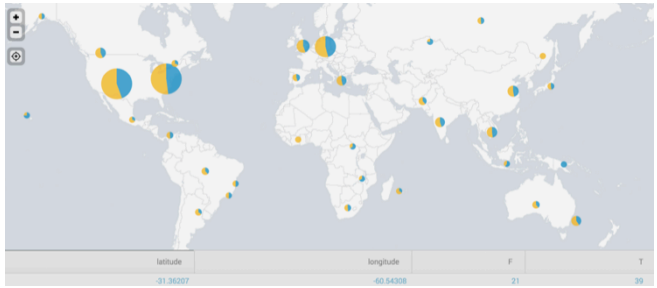
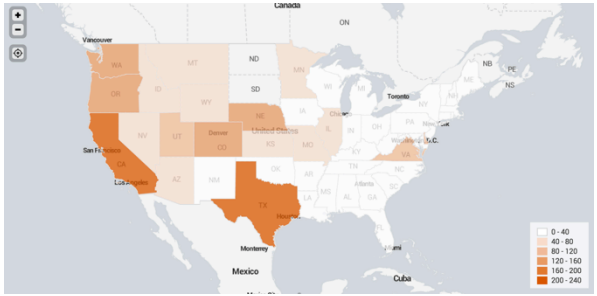
What you need to build a map?

Marker Map



Choropleth Map

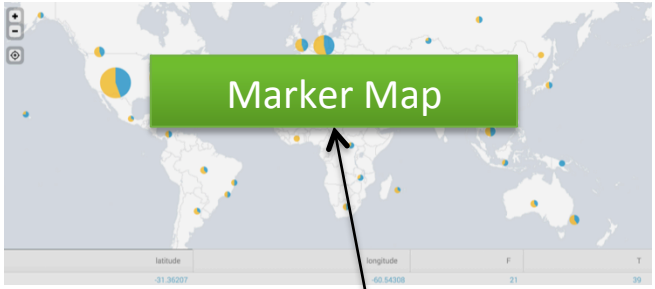


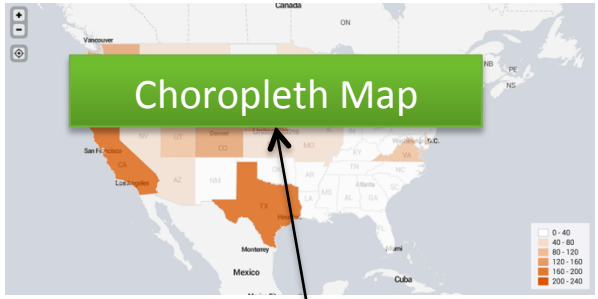
Event that contains latitude and longitude

or

Country / State / Polygon name

Making Data Mappable





Lat/Lon

Polygon

Street Address

ZIP+4

IP Address

Cell Tower

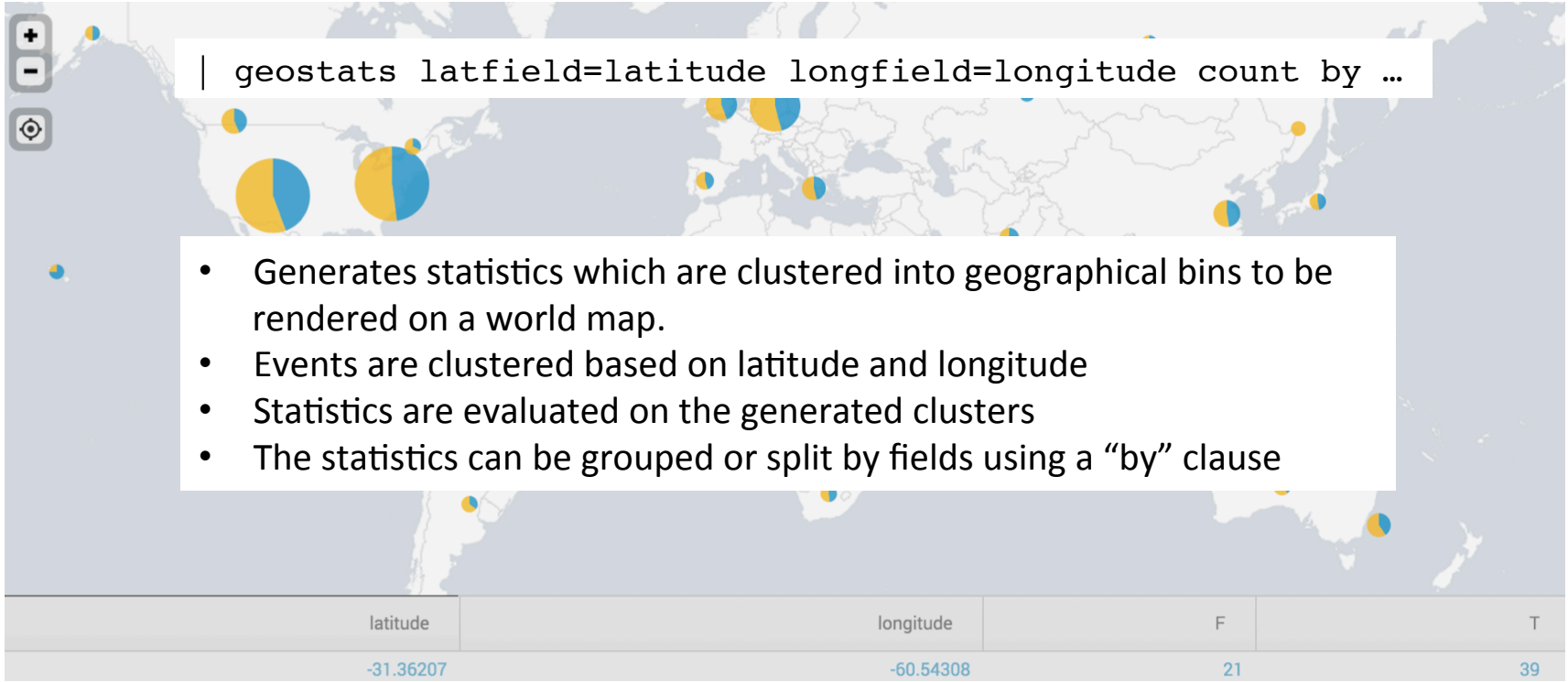
GPS

FIPS

Name

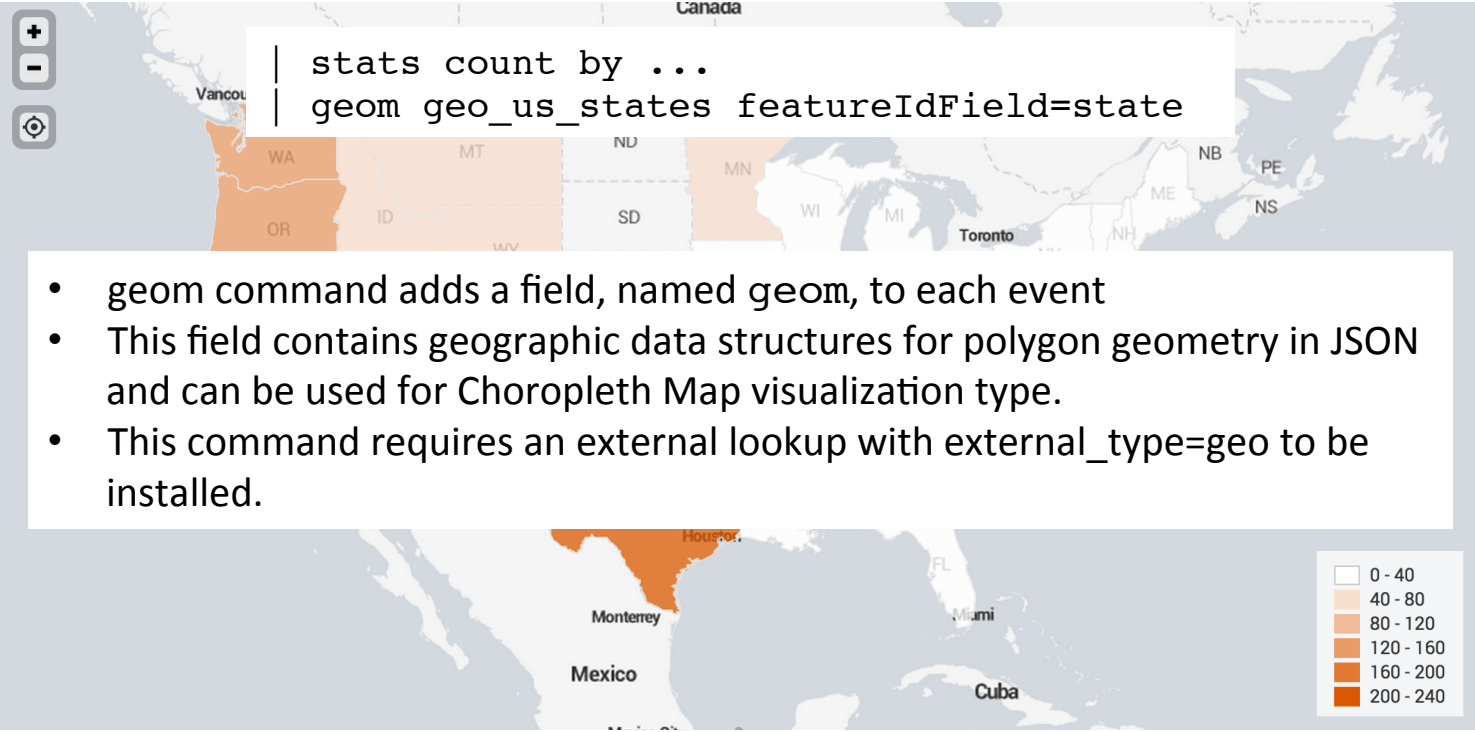
Code

Aggregation: Clusters



- Generates statistics which are clustered into geographical bins to be rendered on a world map.
- Events are clustered based on latitude and longitude
- Statistics are evaluated on the generated clusters
- The statistics can be grouped or split by fields using a “by” clause

Aggregation: Polygons



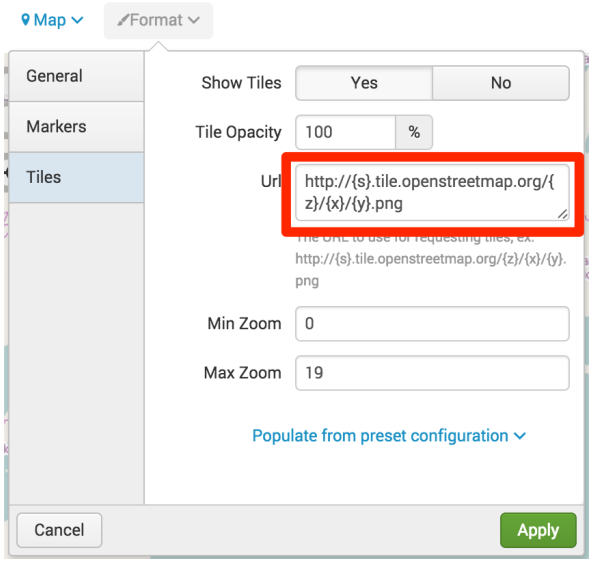
- geom command adds a field, named `geom`, to each event
- This field contains geographic data structures for polygon geometry in JSON and can be used for Choropleth Map visualization type.
- This command requires an external lookup with external_type=geo to be installed.

Tiles

Splunk Tiles
Packaged with every Splunk version
Offline usage OK
Zoom Levels 1-7
Muted Colors. Perfect for Data Overlays.

Open Street Map
Packaged with every Splunk version
Only online
Zoom Levels 1-19

Tiles: Alternatives



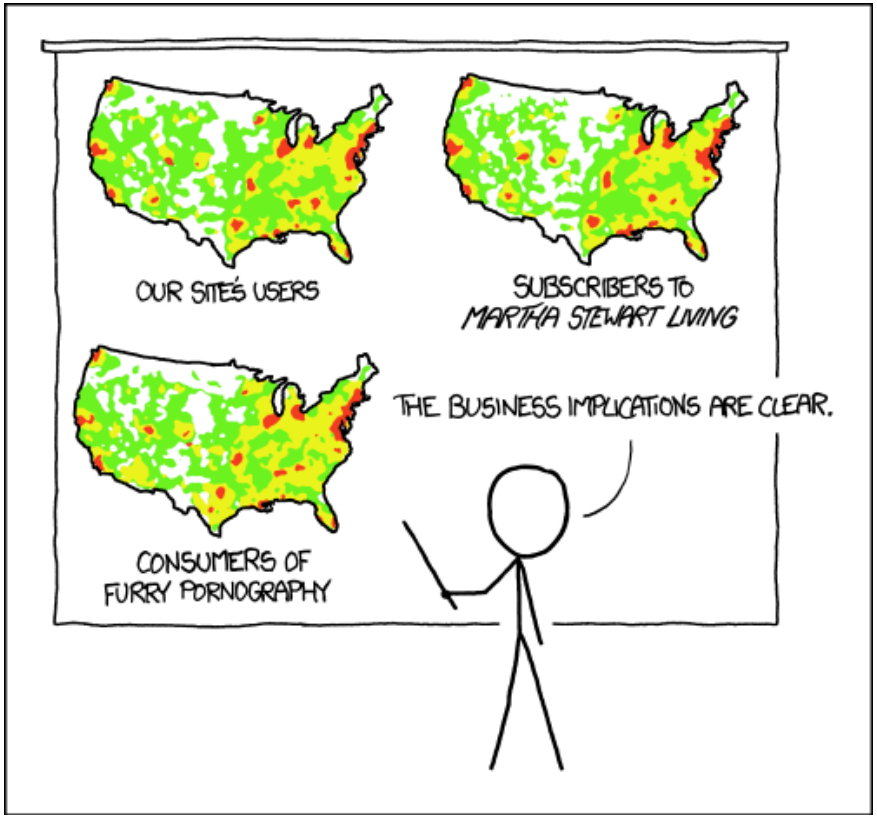
List of tile providers
http://leaflet-extras.github.io/leaflet-providers/preview/


PAY
ATTENTION

Interpretation

Is this really only Germany?

Normalize



PET PEEVE #208:
GEOGRAPHIC PROFILE MAPS WHICH ARE BASICALLY JUST POPULATION MAPS

Source: xkcd.com

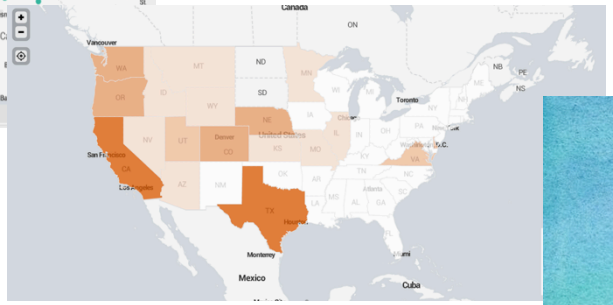
If possible, normalize!

- By population / user density
- By percent of a baseline
- Compared to a previous point in time

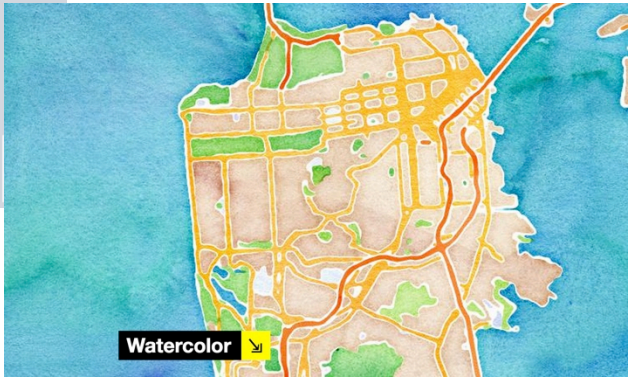
Recap!

Mapping is easy and useful

New: Choropleth Maps



Use Custom Tiles



Q&A

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Wrap up

- Coming up in this room
  Paint by Number: New Visualizations in Splunk 6.3

- Resources:
  - **Tile providers:** http://leaflet-extras.github.io/leaflet-providers/preview/
  - **Marker Maps Docs:** http://docs.splunk.com/Documentation/Splunk/6.3.0/SearchReference/Geostats
  - **Choropleth Docs:** http://docs.splunk.com/Documentation/Splunk/6.3.0/Viz/Choroplethmaps

THANK YOU

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