



SENTURUS

A photograph showing a person's hands pointing at a physical map spread out on a surface. The map shows a coastal region with roads and geographical features. In the foreground, the dashboard of a car is visible, featuring a digital display showing '14°C' and 'FM', and a radio control knob. The background shows a car window looking out onto a landscape with hills and a body of water.

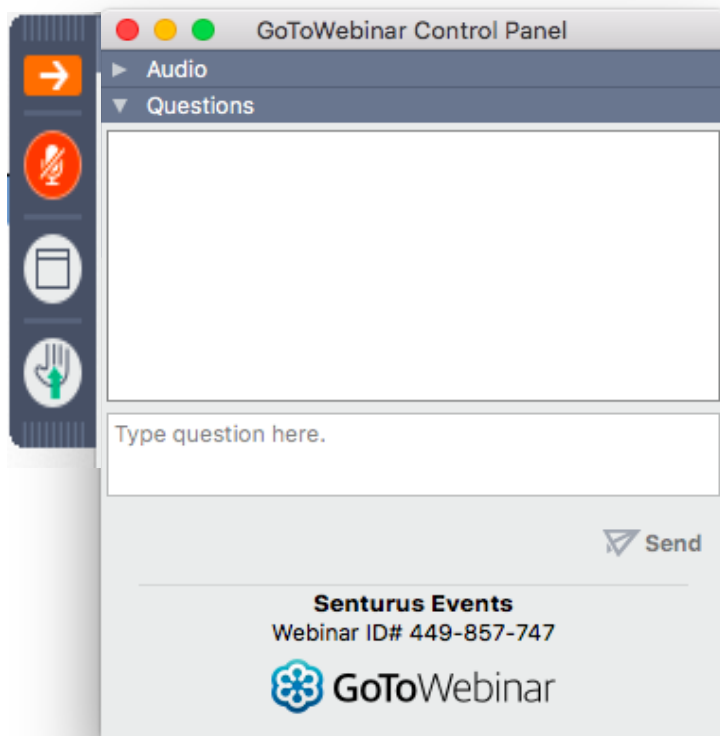
**GET ON THE MAP WITH
TABLEAU MAPS**

GoToWebinar Control Panel

Click arrow to restore full control panel



Submit questions here



Presentation Slide Deck

www.senturus.com/resources/

RESOURCE LIBRARY

Welcome to our extensive, free library of past webinars, demos, whitepapers, presentations and helpful hints. Use the topic boxes to the right to filter through and easily locate content. We are constantly adding new materials, so please check back often to see our latest content. Enjoy!

SEARCH RESOURCES

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Type



RESOURCE TITLE

TYPE

GO

A COMPARISON OF POWER BI, TABLEAU & COGNOS
Differentiators Demo'd



FEATURES



TABLEAU DASHBOARDS THAT CAPTIVATE & COMMUNICATE
Characteristics of Well Designed, Interactive Dashboards



TIPS &
TRICKS



MIGRATING BI SYSTEMS? FAILURE IS NOT AN OPTION
How to Ensure a Successful Change



BUSINESS
STRATEGY



Agenda

- Introductions
- Tableau mapping 101
 - Mapping components
 - Tips & tricks
- Missing features in Tableau maps
- Tableau maps in 2019.2
 - Spoiler alert - big improvements!
- Fancy maps using WMS Servers
- Senturus overview
- Additional resources
- Q&A

Introducing...Today's Presenters



Monica Van Loon
Tableau Consultant
and Trainer
Senturus, Inc.



Michael Weinbauer
Practice Area Director /
Solutions Architect
Senturus, Inc.



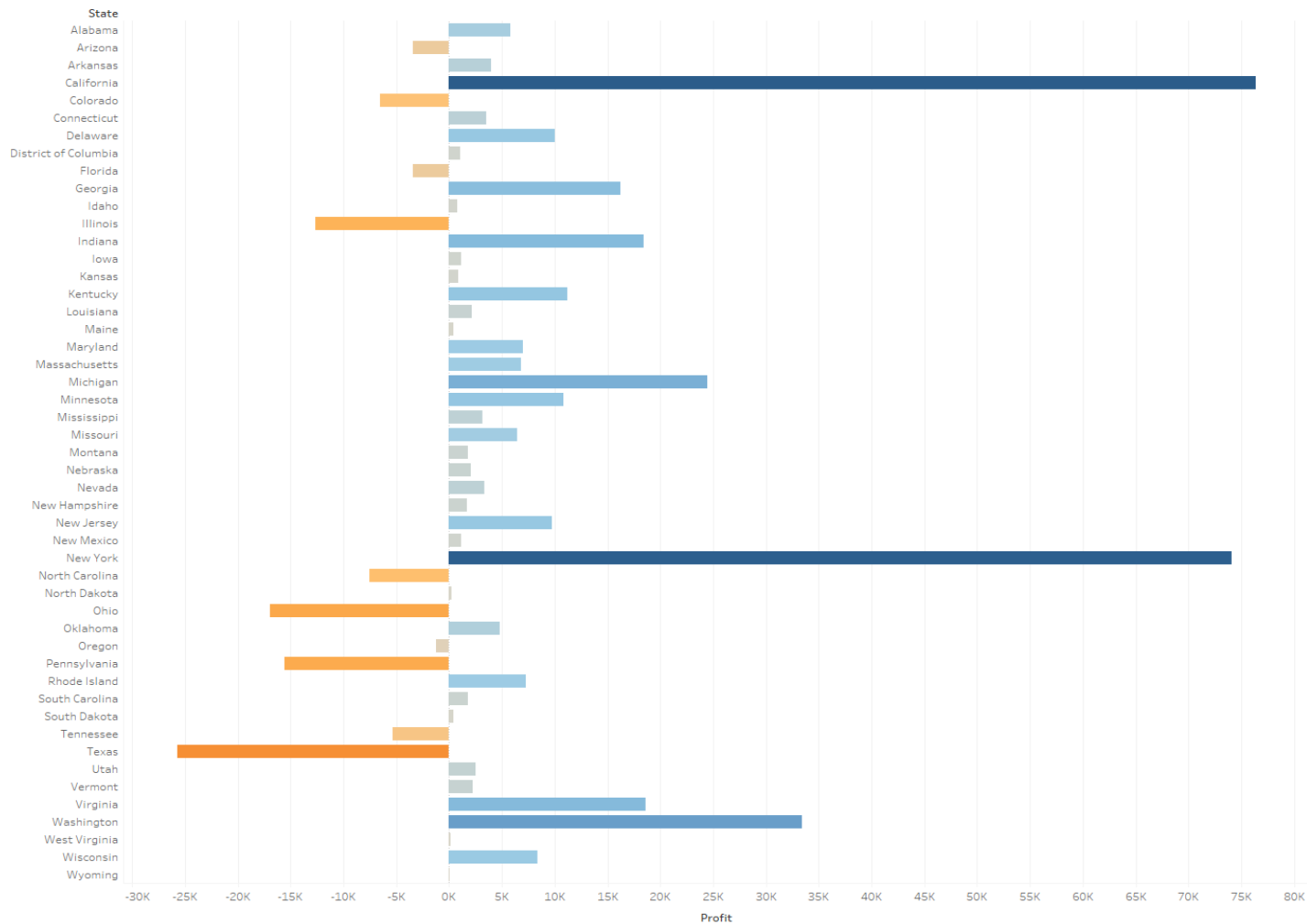
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GET ON THE MAP!

Beyond Bars and Lines

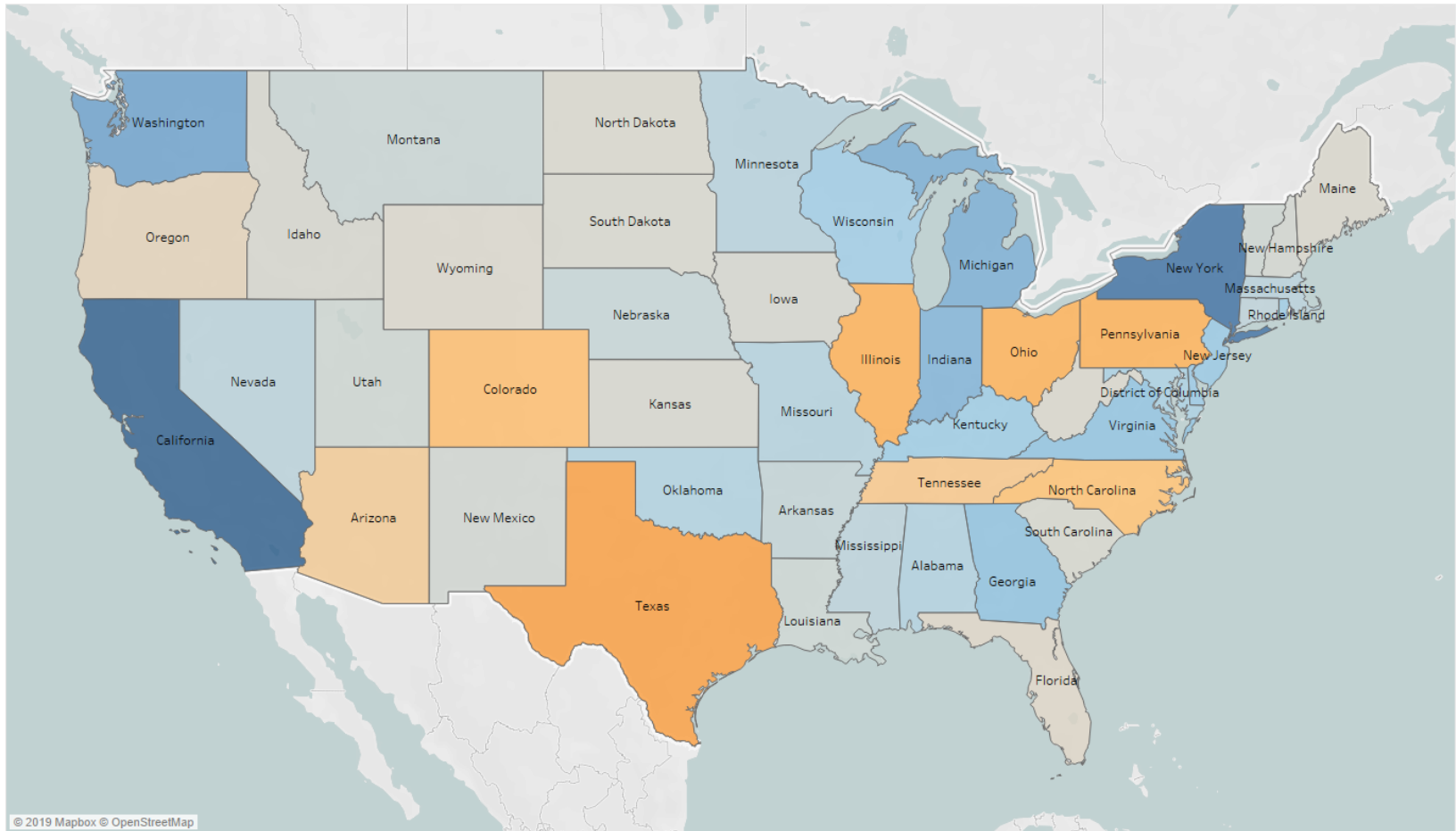
A Picture Is Worth a Thousand Words!

Profit by State



A Picture Is Worth a Thousand Words!

Profit by State



Pop Quiz/Poll

In what version did Tableau introduce maps?

- 4.0
- 6.0
- 8.1
- 10.5
- 2018.1

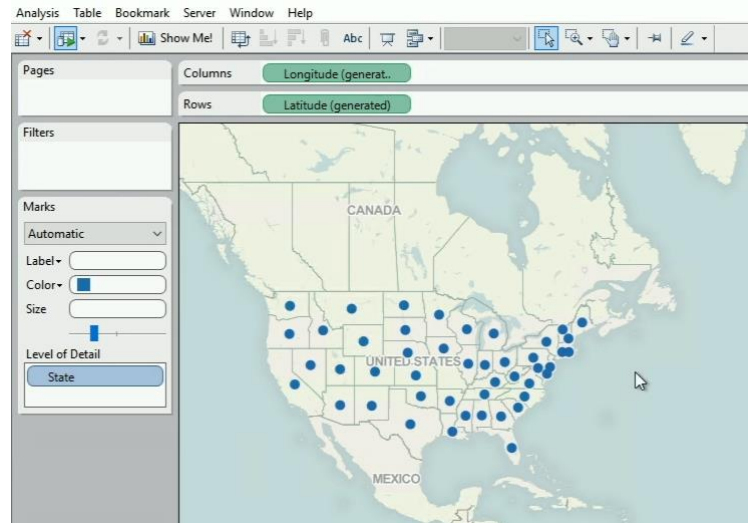


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TIMELINE - TABLEAU MAPPING

Timeline - Mapping Features

- Release 4.0 (2008) - Simple point maps (wow 11 years ago!!)

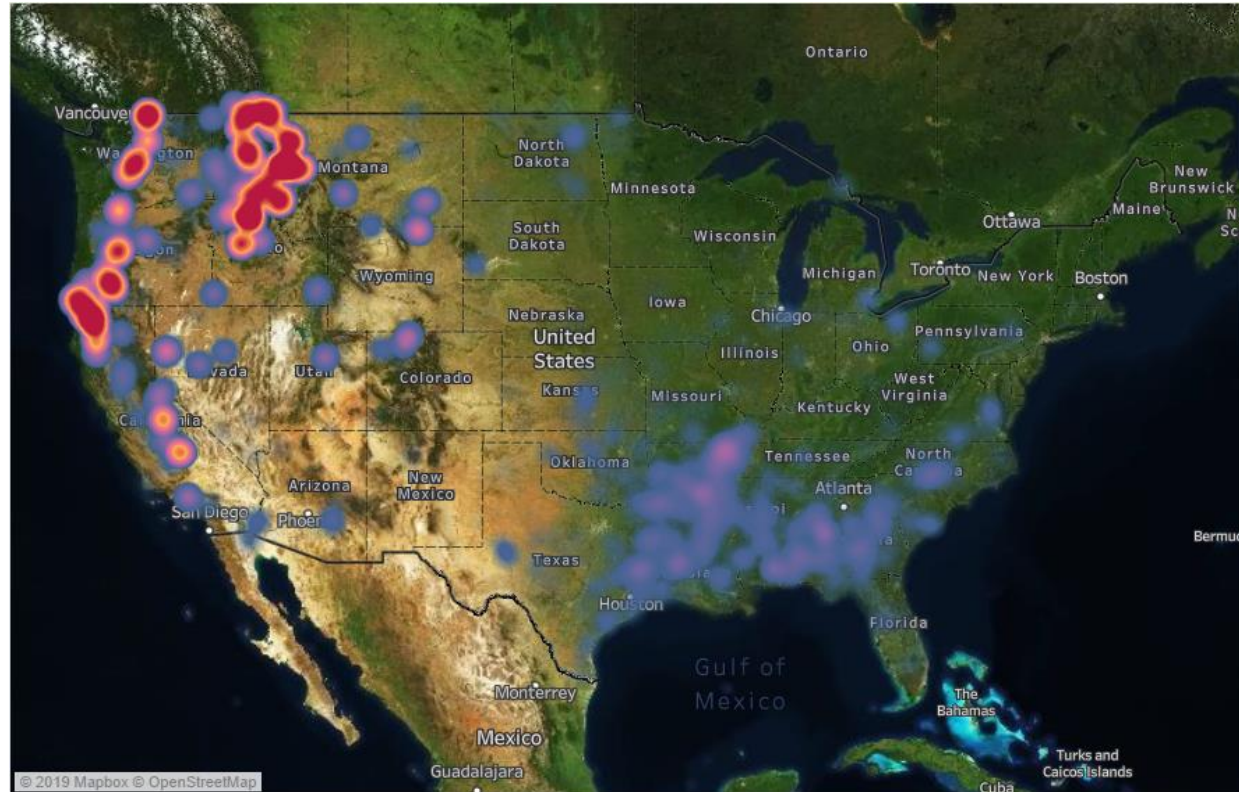
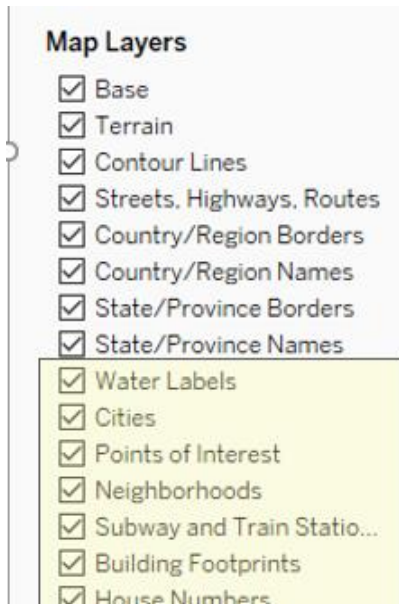


- Release 9.0 (2015) - Geographic search and census data
- Release 10.2 (2016) - Spatial file connect
- Release 2018.0 - Dual axis mapping
- Release 2018.2 - Spatial join

Timeline - Tableau Mapping Features (continued)

Release 2019.2

- Vector maps
- Satellite maps
- Density maps
- New map layers





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TABLEAU MAPPING 101

Overview

Tableau Mapping 101 - Components

- Background maps
- Map layers
- Map styles
- Map options

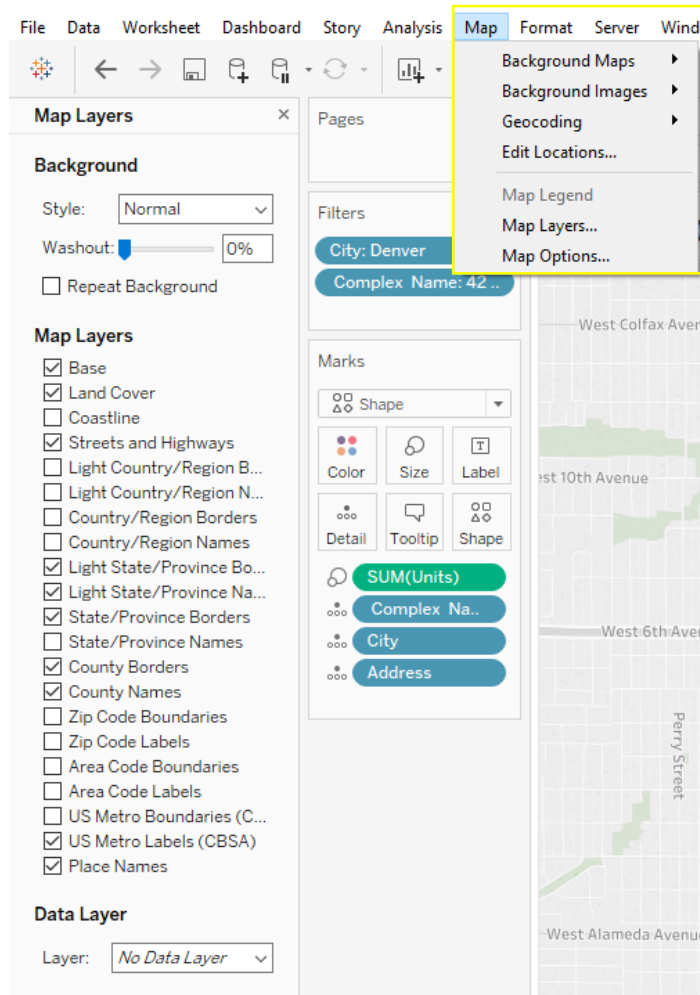
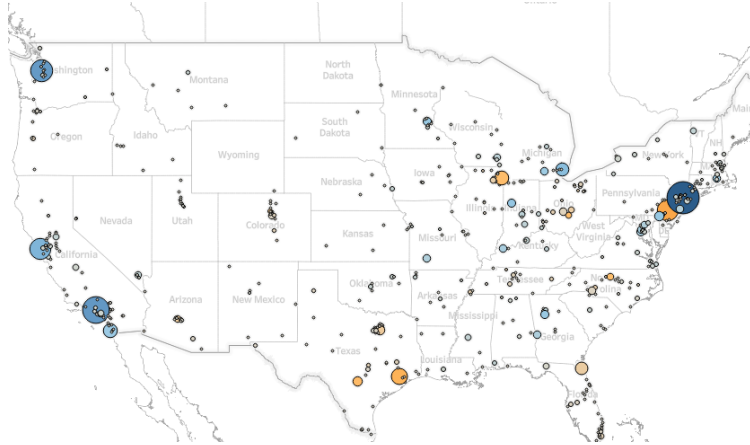
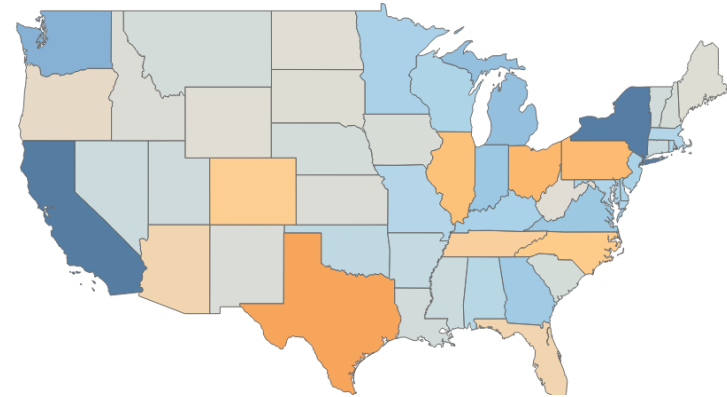


Tableau Mapping 101 - Types of Maps

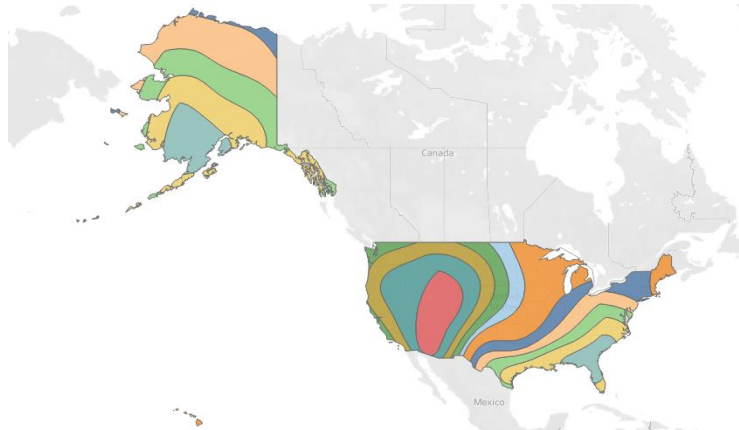
Point Maps & Proportional Symbol Maps



Choropleth (polygon filled maps)



Polygon Maps (using spatial files)



Spider Maps (origin/destination)

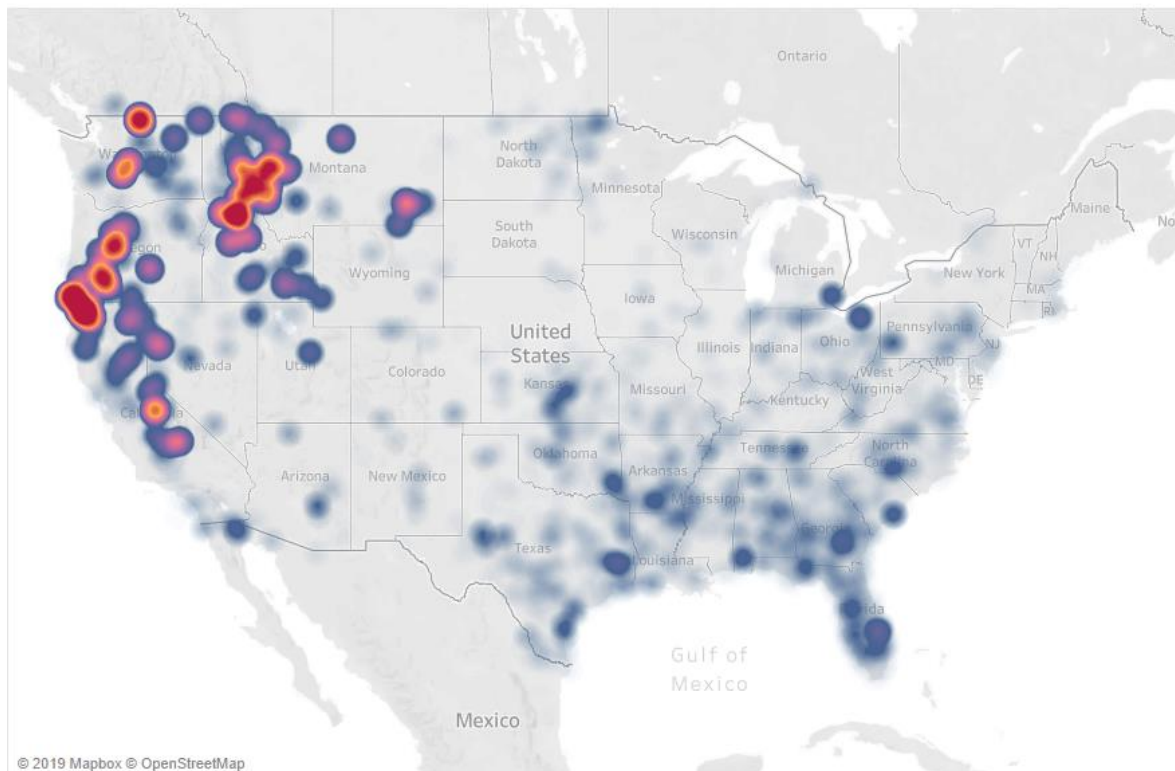


Tableau Mapping 101 - Types of Maps (continued)

Version 2019.2 - Heat Maps (density maps)

Good for showing trends for visual clusters of data

Fire Density Map - August





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DEMO 1

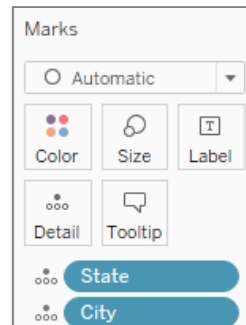
Mapping Basics

Review - Tips & Tricks

- Quick map - double click items with a globe



- If you get unknown cities, put State on Detail



- You can manually assign a geographic role (if data supports it...)

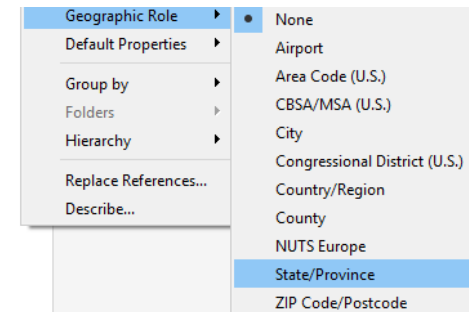
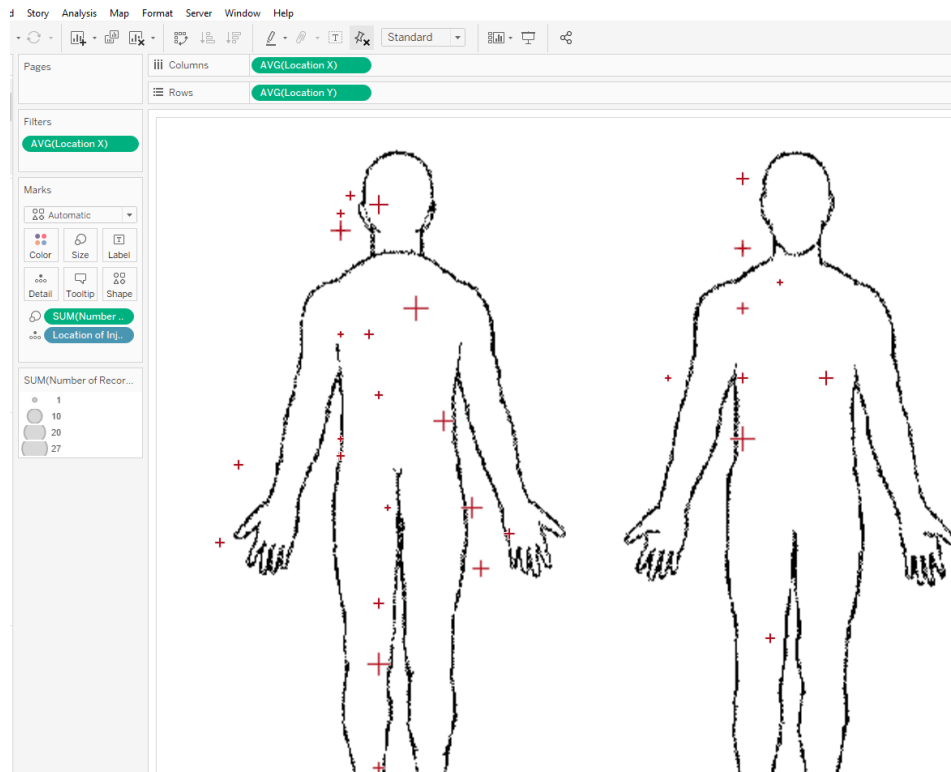


Tableau Mapping 101 - Good to know

A map does not have to show geography
(it is basically anything you can plot on an X Y axis)



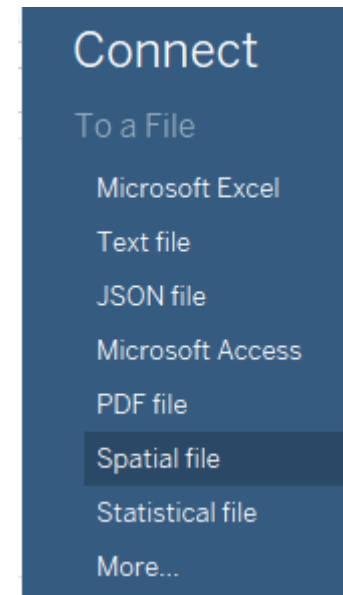
Note: This is an exercise from the Senturus Advanced Tableau Training class

Tableau Mapping 101 - Spatial Files

You can connect directly to a spatial file and build a map
(Release 10.2 and above)

Supported spatial file types:

- KML (Keyhole Markup Language) files
- MapInfo files
- Shape files
- GeoJSON files
- TopoJSON files
- Zipped Esri file geodatabases





You can create point, line or polygon maps using spatial files

Tableau Mapping 101 - Tips for Spatial Files

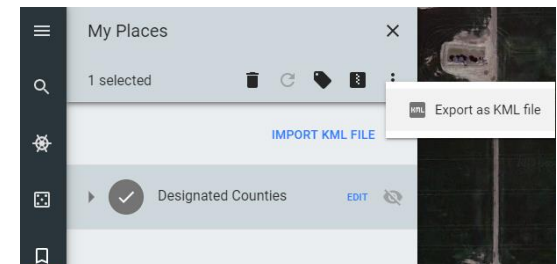
Convert KMZ to KML

See below for an example from the FEMA website

- Disaster Declared Counties - National View 
- Declared Disasters (Historical) 

Open in Google Earth and export to KML

<https://www.google.com/earth/>





DEMO 2 & 3 SPATIAL FILES

Demo 2 - Converting and Using KML Files

Demo 3 - Shape Files and Density Maps



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WHAT'S MISSING

Tableau Mapping

What's Missing - Street Addresses

- By default, Tableau will not map a street address
- But, IF you have latitude/longitude you can put an address on a map
- To generate latitude/longitude from addresses use a geocoder

| | A | B | C | D | E | F | G | H | I | J | K |
|---|----|---------------------|--------|-------|-------|-------|--------|----------|------------|--------|---------|
| 1 | ST | Address | City | State | Zip | Units | County | Latitude | Longitude | City | Country |
| 2 | CO | 2866 Arbor Dr. | Evans | CO | 80620 | 80 | Weld | 40.37846 | -104.72503 | Evans | USA |
| 3 | CO | 809 Dexter St | Denver | CO | 80220 | 38 | Denver | 39.72946 | -104.93313 | Denver | USA |
| 4 | CO | 833 Dexter | Denver | CO | 80220 | 17 | Denver | 39.72987 | -104.93313 | Denver | USA |
| 5 | CO | 850 Cherry St | Denver | CO | 80220 | 20 | Denver | 39.73024 | -104.93365 | Denver | USA |
| 6 | CO | 2035 S Josephine St | Denver | CO | 80120 | 40 | Denver | 39.67947 | -104.95833 | Denver | USA |
| 7 | CO | 2375 E Evans Ave | Denver | CO | 80120 | 140 | Denver | 39.67867 | -104.9585 | Denver | USA |
| 8 | CO | 1918 S Columbine St | Denver | CO | 80120 | 4 | Denver | 39.68155 | -104.95611 | Denver | USA |
| 9 | CO | 2085 S Josephine St | Denver | CO | 80120 | 22 | Denver | 39.67883 | -104.95833 | Denver | USA |

Output from Alteryx Geocoder



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DEMO 4

Mapping Address Data



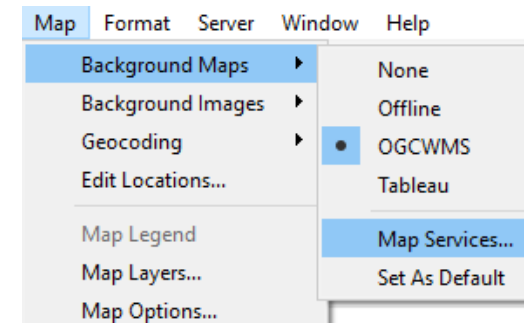
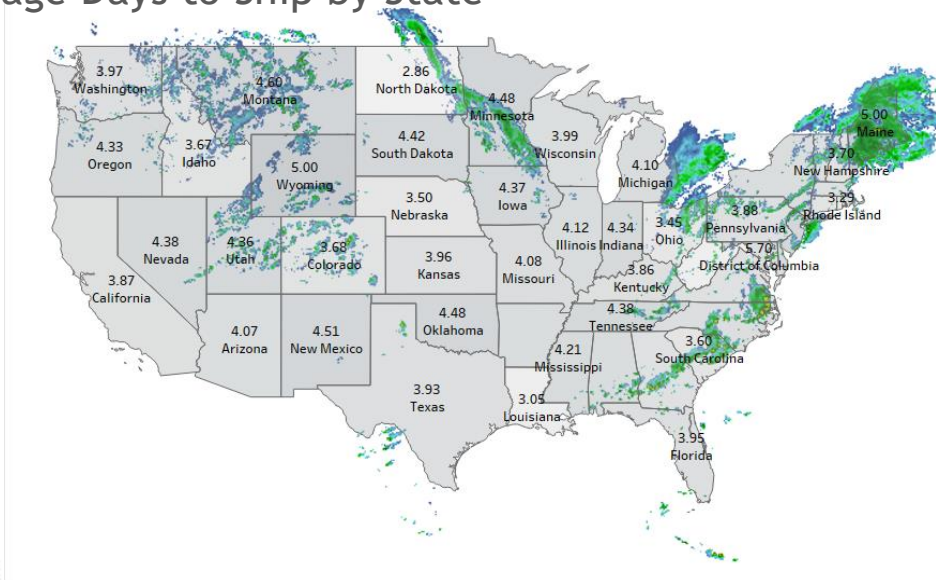
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WEB MAPPING SERVICES (WMS)

Other Web Mapping Services (WMS)

- By default you see the Tableau background map
- Instead of this you can add other web mapping services like the live weather radar map shown below
- Go to Maps → Background Maps → Map Services

Average Days to Ship by State





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DEMO 5

Adding a Web Mapping Service (WMS)



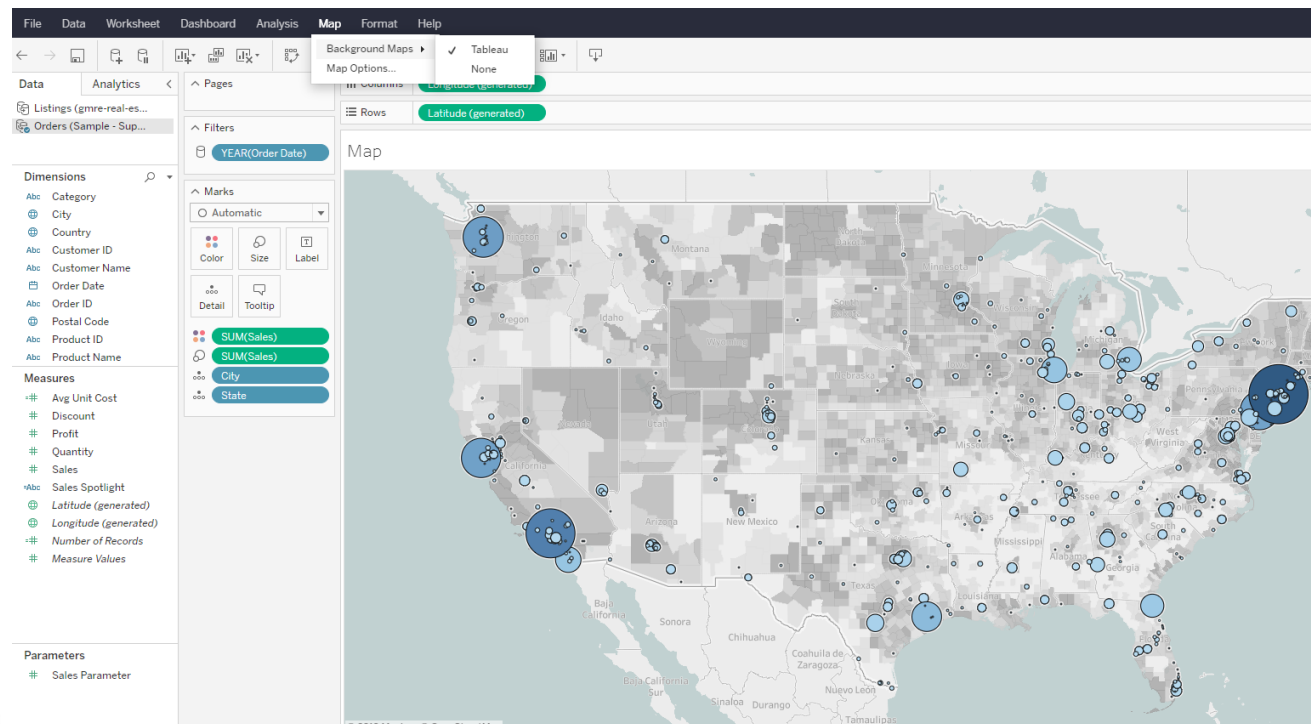
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ADDITIONAL MAPPING TOPICS

Mapping in Tableau Server - Web Authoring

Tableau Server (Release 2019.2)

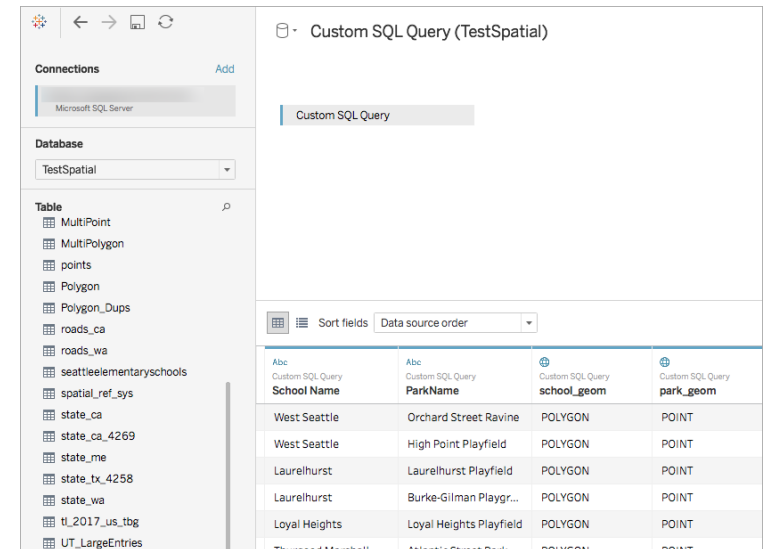
- You can build a simple map
- No access to map layers
- You can *display* map layers built in Tableau Desktop
- No Spatial Data Connector



Spatial Data Stored in a Database

Tableau 2019.2 supports direct connections to spatial data stored in the following databases:

- Microsoft SQL Server (V 2018.1)
- PostgreSQL + PostGIS
- Pivotal Greenplum + PostGIS



The screenshot shows the Tableau interface with a custom SQL query named 'TestSpatial'. The 'Database' dropdown is set to 'TestSpatial'. The 'Table' list on the left includes various spatial data types like MultiPoint, MultiPolygon, points, Polygon, and others. The main view displays a table with four columns: 'School Name', 'ParkName', 'school_geom', and 'park_geom'. The data is sorted by 'Data source order'.

| Custom SQL Query | Custom SQL Query | Custom SQL Query | Custom SQL Query |
|-------------------|-------------------------|------------------|------------------|
| School Name | ParkName | school_geom | park_geom |
| West Seattle | Orchard Street Ravine | POLYGON | POINT |
| West Seattle | High Point Playfield | POLYGON | POINT |
| Laurelhurst | Laurelhurst Playfield | POLYGON | POINT |
| Laurelhurst | Burke-Gilman Playgr... | POLYGON | POINT |
| Loyal Heights | Loyal Heights Playfield | POLYGON | POINT |
| Thurnood Marshall | Atlantic Street Park | POLYGON | POINT |

Custom Sql and Raw Sql examples using spatial data stored in a database:

https://onlinehelp.tableau.com/current/pro/desktop/en-us/maps_spatial_sql.htm



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SUMMARY

Summary - What We Covered

- Basic mapping in Tableau
- Other types of maps and when to use them
- How to connect to spatial data
- How to workaround common “gotchas”

But there is so much more!

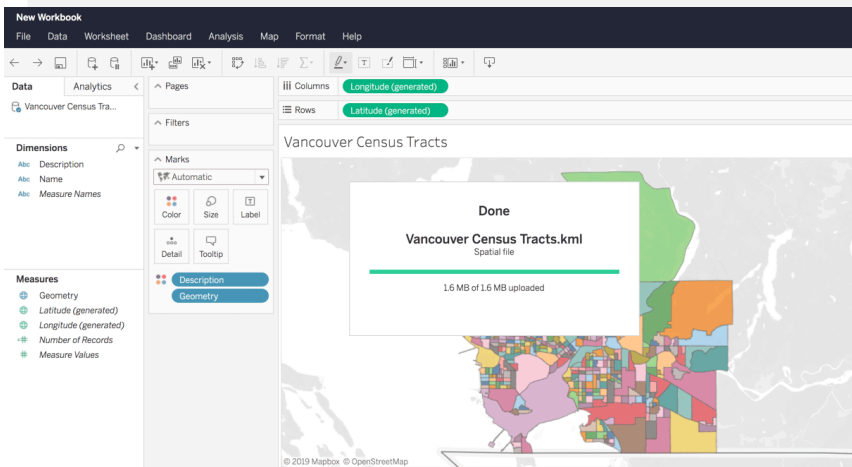


Additional Mapping Resources

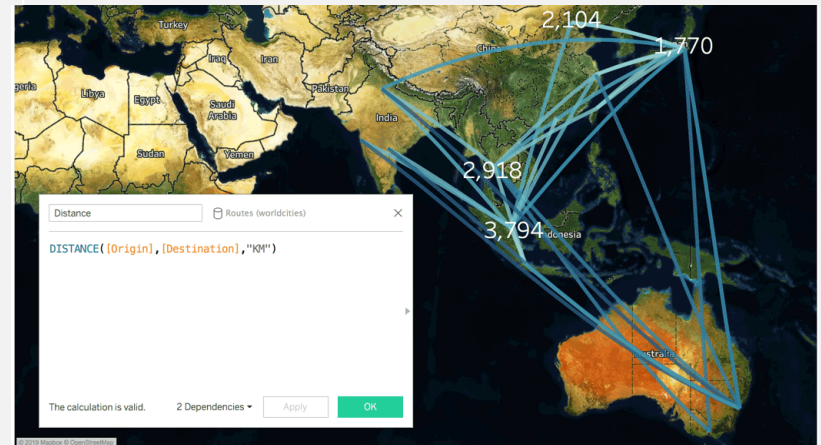
- Custom Territories in Tableau
<https://senturus.com/blog/how-to-create-groups-in-tableau/>
- Tableau Conference 2018 - Mapping Sessions
https://tc18.tableau.com/learn/sessions?search=map&apply_filter=yes
- Geocoder Options
<https://csv2geo.com> (*not free but inexpensive*)
<http://geoservices.tamu.edu/Services/Geocode/BatchProcess/>
- NOAA WMS URL (Background Maps → Map Services)
http://nowcoast.noaa.gov/arcgis/services/nowcoast/radar_meteo_imagery_nexrad_time/MapServer/WMSServer?
- Tableau Community - Mapping
[Ask us anything about Maps or Spatial data in Tableau](#)
- Kent Marten - Product Manager Maps and Spatial Analysis
<https://community.tableau.com/people/kent.marten.0>

Coming Soon! (Release 2019.3)

Spatial file connector - Web authoring



Spatial calculations: Distance



All Senturus Classes Cover Mapping Concepts

FUNDAMENTALS creates a basic map of sales and profit

<https://senturus.com/?p=5877>

INTERMEDIATE creates custom territories

<https://senturus.com/?p=5873>

ADVANCED builds the map of a human body

<https://senturus.com/?p=5875>

EXPERT builds a filled map using polygons and shows how to integrate custom maps from Mapbox

<https://senturus.com/?p=7821>

20% off Training for Webinar Attendees

<https://senturus.com/training/course-schedule-2/>

INSTRUCTOR-LED ONLINE CLASSES

- Use coupon code: **maps**
- Good on any Tableau class
- Expires August 18, 2019

| PLATFORM | VERSION | TOOL | TITLE | DATE | GO |
|----------|---------|---------|--|-----------------|----|
| TABLEAU | 2019.2 | DESKTOP | INTERMEDIATE DATA VISUALIZATION AND DASHBOARDING | JUL 23 | → |
| TABLEAU | 2019.2 | DESKTOP | EXPERT TABLEAU DEVELOPMENT | AUG 08 | → |
| TABLEAU | 2019.2 | DESKTOP | DATA VISUALIZATION AND DASHBOARDING FUNDAMENTALS | AUG 20 | → |
| TABLEAU | 2019.2 | DESKTOP | INTERMEDIATE DATA VISUALIZATION AND DASHBOARDING | AUG 21 | → |
| TABLEAU | 2019.2 | DESKTOP | ADVANCED DATA VISUALIZATION AND DASHBOARDING | AUG - AUG 22 23 | → |

Need Additional Help with Tableau?

- We can mentor you so you learn how to resolve your BI challenges
- We can give you access to an entire team of BI experts to fill in as needed

Mentoring: <https://senturus.com/?p=462>

Expert Staffing: <https://www.senturus.com/?p=6497>

Contact us at: info@senturus.com or 888 601 6010 ext. 87

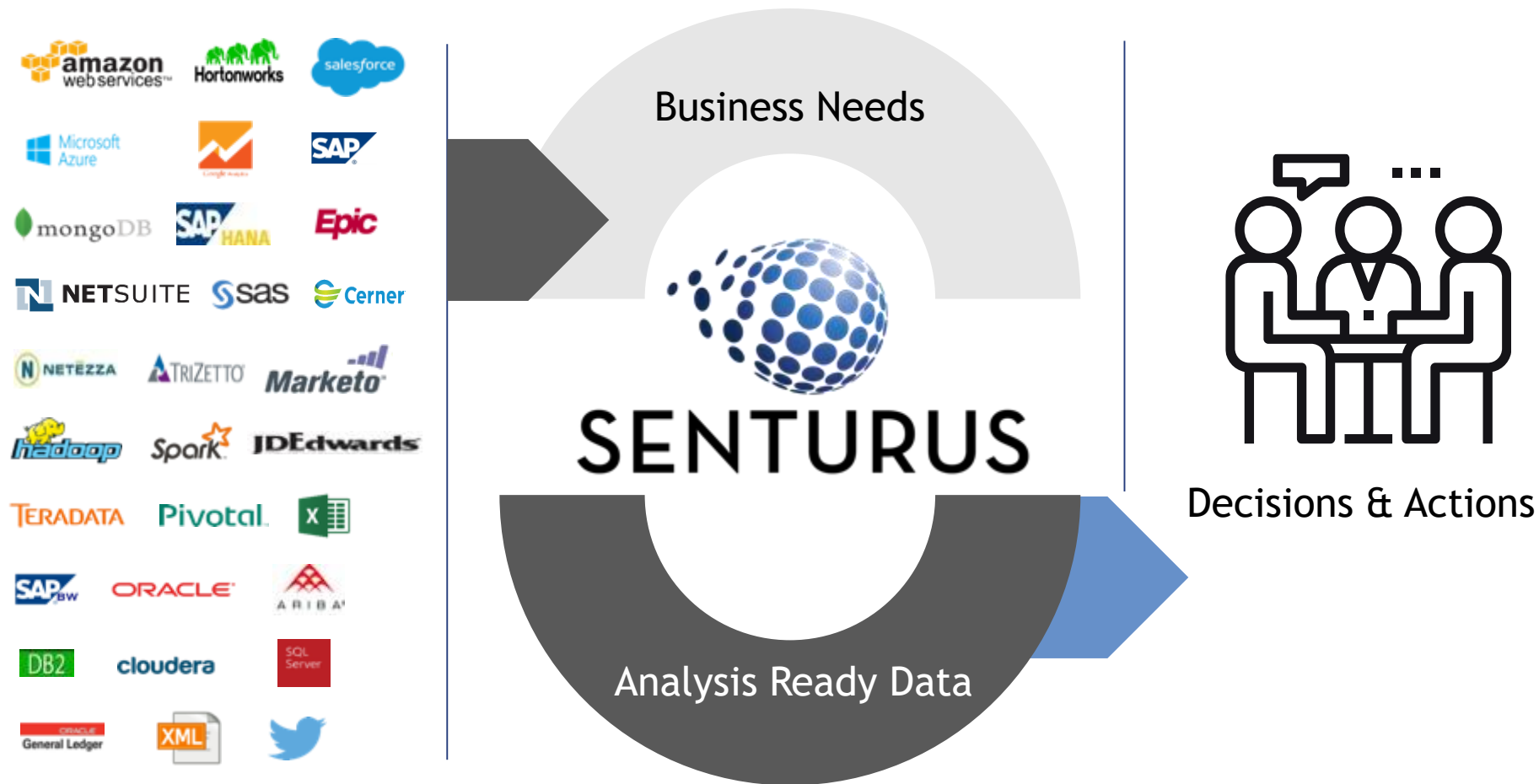


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WHO WE ARE

Business Analytics Consultants

Bridging the Gap between Data & Decision Making



Business Analytics Architects

- Dashboards, reporting and visualizations
- Data preparation and modern data warehousing
- Self-service business analytics
- Salesforce reporting
- Proprietary software to enable bimodal BI and platform migrations



Power BI



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ADDITIONAL RESOURCES

Upcoming Events

www.senturus.com/events



COGNOS 11.1.3: OVERVIEW OF THE BRAND NEW RELEASE

DEMOS OF NEW FEATURES



POWER BI: BEYOND THE BUZZ

THE STRAIGHT TALK ON MICROSOFT'S DATA VISUALIZATION TOOL FOR BI



USE VISUAL ANALYTICS TOOLS WITH TRUSTED COGNOS DATA

SENTURUS ANALYTICS CONNECTOR ENABLES BI-MODAL BI



COMPARISON OF POWER BI, TABLEAU & COGNOS

A DEMO AND COMPARISON OF DATA LOADING, DATA PREP AND BUILDING OF DASHBOARD VISUALIZATIONS

Free Resources

www.senturus.com/senturus-resources/



UPCOMING EVENTS



RESOURCE LIBRARY



BLOG

[Tableau Dashboards that Captivate & Communicate](#) (recording)

[Hallelujah! Tableau to Support Emailing PDFs!](#) (blog)

[How to Create Groups in Tableau](#) (blog)

Corporate Training Options

<https://senturus.com/training/tableau-training/>



CORPORATE TRAINING



SELF-PACED LEARNING



MENTORING



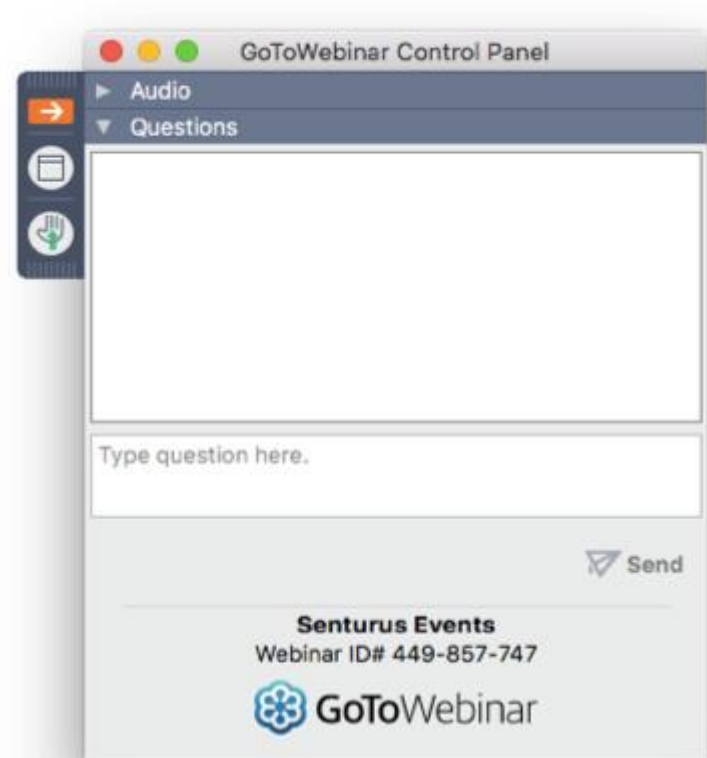
PREP FOR TABLEAU CERTIFICATION

Q&A

If your question or issue is broader than what can be answered today, contact us at

info@senturus.com

and we will set up a free consultation.





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APPENDIX

Glossary

Vector Data - A representation of the world using points, lines and polygons

Shapefiles - Esri is a common mapping tool and Esri shapefiles are one of the most common formats for exchanging vector data

KML - Keyhole Markup Language - spatial data format used to place geographic data on top of Google Earth

WMS - Web Mapping Service

Tableau Mapping 101 - Spatial Files

Where to find spatial files

NOAA data - Weather-related data

<https://www.climate.gov/maps-data>

FEMA data - Data on disasters

<https://www.fema.gov/data-feeds>

Census data - Population and demographic data

<https://www.census.gov/programs-surveys/geography.html>

Thank You!

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