



10 STEPS

to your first map in Sense

1 - Installation

[Click here](#) to see an online help article on how to install and license any ancoreSoft extension..

2 - New Sense App - Add Data

Create a new Qlik Sense app and load all the data from the file [US.xlsx](#)

Either using the Sense data wizard:

State	Abbrevia...	Cap...	Population
Alabama	AL	Montgomery	205764
Arizona	AZ	Phoenix	1445632
Arkansas	AR	Little Rock	193524

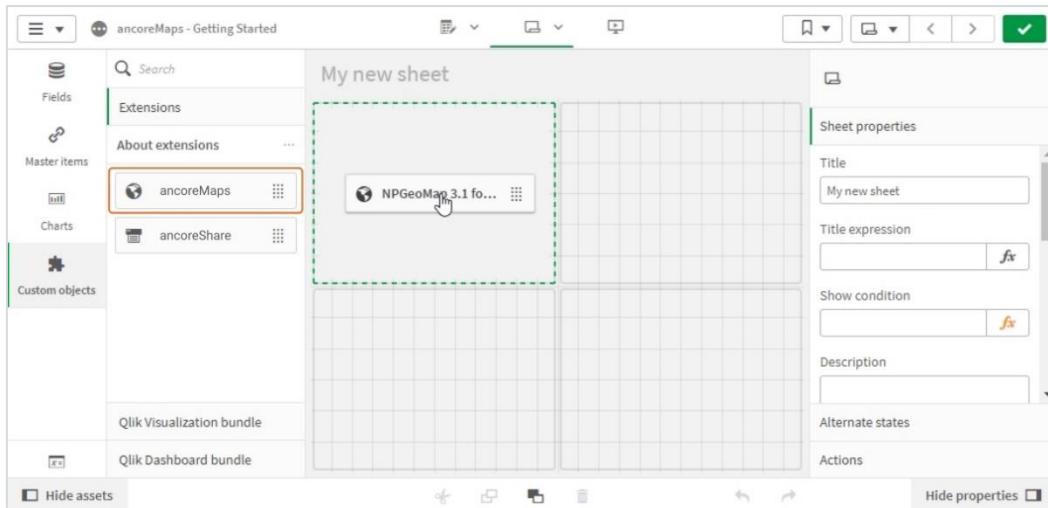
Or directly in the data editor:

```
21
22
23 LOAD
24     State,
25     Abbreviation,
26     Capital,
27     PopulationCapital,
28     "Date of statehood",
29     "Capital since",
30     "Land area (mi²)",
31     "Rank in cities of its state by population",
32     GeoCoordinates,
33     PopulationState,
34     Sales
35 FROM [lib://Getting Started with ancoreMaps (sand
(ooxml, embedded labels, table is Tabelle1);
```



3 - New Sense App

Open a new sheet in Qlik Sense and drag an ancoreMaps* object onto the workspace



4 - Add Background Map

Select your ancoreMaps object on the sheet and go to **Background Map** in the properties panel on the right.

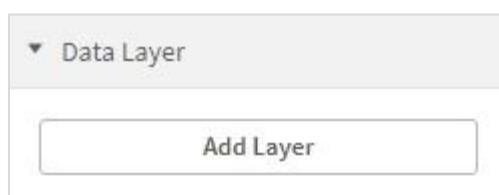
Set "Qlik default map grey" as **Map Type**.



5 - Add Point Layer

Let's display the capital cities as markers (points).

To add markers to your map, go to **Data Layer** and click on **Add Layer**.





Set the field "Capital" as **Dimension** for the marker layer.



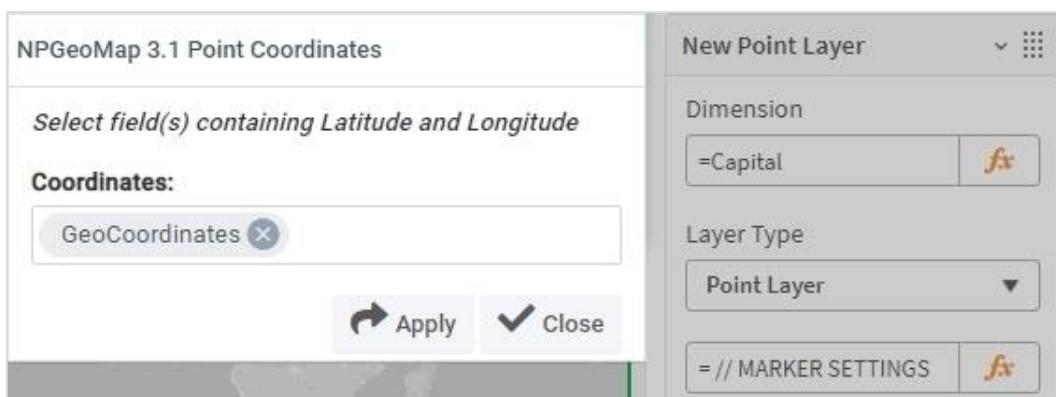
New Layer

Dimension

=Capital

Select "Point Layer" as **Layer Type** - a small wizard window will pop up.

In the wizard select the field "GeoCoordinates" as **Coordinates** for the Markers, click on **Apply** and then **Close**.



NPGeoMap 3.1 Point Coordinates

Select field(s) containing Latitude and Longitude

Coordinates:

GeoCoordinates

Apply Close

New Point Layer

Dimension

=Capital

Layer Type

Point Layer

// MARKER SETTINGS

6 - Style Points

To format the markers and set a tooltip navigate to MARKER SETTINGS and open the expression editor (fx).



= // MARKER SETTINGS

Edit in expression editor

Enable the needed settings by deleting the double slashes // at the beginning of each row (color of the code will change) and then set the following (by copy paste from here):

& '#Color%=' & Sum(PopulationCapital)

(to set the color of markers according to classes as well)

& '#Size%=' & Sum(PopulationCapital)

(to set the size of markers in proportion to the population numbers, by the use of classes)

& '#BorderColor=' & 'white'

& '#Tooltip=' & Capital & ': '& Sum(PopulationCapital)

(to display a tooltip for markers when hovering over one with the cursor, showing the name of the city and its population the marker is representing)



Edit expression

```
12 & '#Color%=' & Sum(PopulationCapital)
13 //& '#Opacity=' & 50
14 //& '#Size=' & 8
15 & '#Size%=' & Sum(PopulationCapital)
16 & '#BorderColor=' & 'white'
17 //& '#BorderColor%=' & RowNo(TOTAL)
18 //& '#BorderSize=' & 1
19 //& '#BorderSize%=' & RowNo(TOTAL)
20 //& '#Label=' & ''
21 //& '#LabelPosition=' & ''
22 & '#Tooltip=' & Capital & ': ' & Sum(PopulationCapital)
```

Fields

Filter by table

All tables

Field

State

Aggregation functions

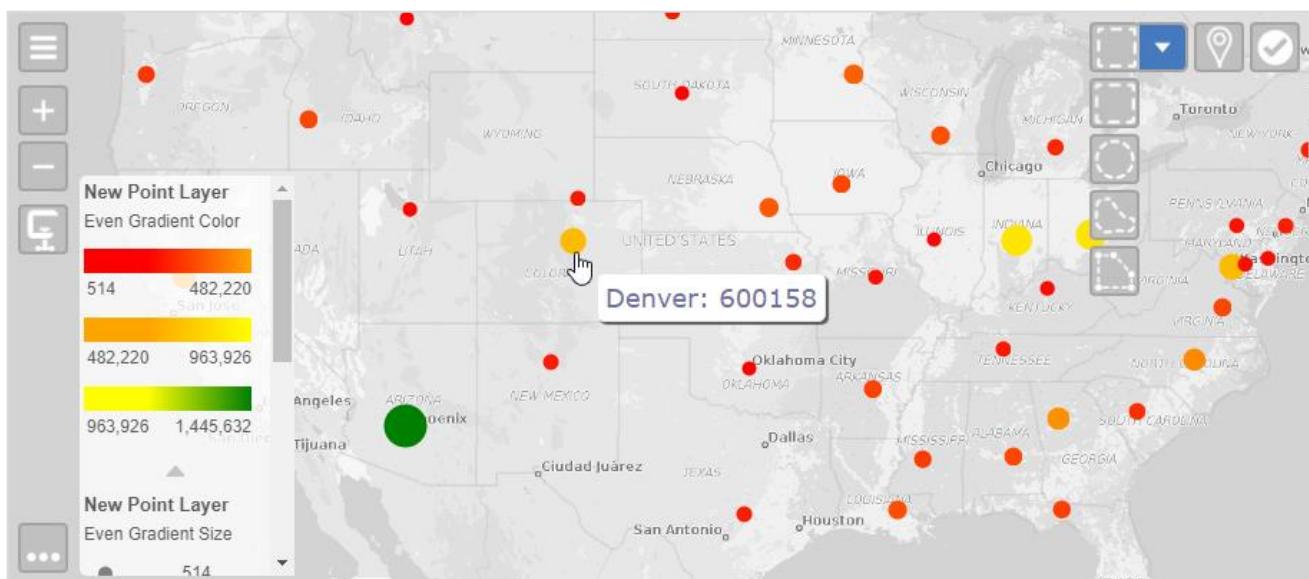
Cancel Apply

Click **Apply** and exit the Sense "Edit mode".

Now you can see all capitals of the US states as markers in different sizes and colors, each according to the population it's representing.

If you hover with the cursor over a marker, you can see the tooltip with the respective name of the capital and the number of people living there.

By double clicking a marker you can select a single one, or use the selection tools in the upper right corner of the map for analytic selections.



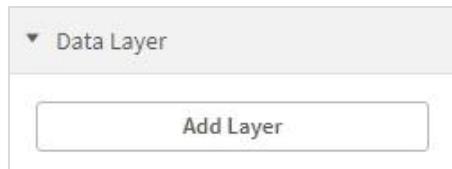
7 - Add Area Layer

Let's display the states as polygons (area map).

Go back to Sense Edit Mode and add another layer



To add polygons as a map layer, select your ancoreMaps object on the Sense sheet, go to **Data Layer** and click on **Add Layer**.



Set the field "State" as **Dimension** for the area layer.



Select "Area Layer" as **Layer Type** - a small wizard window will pop up.

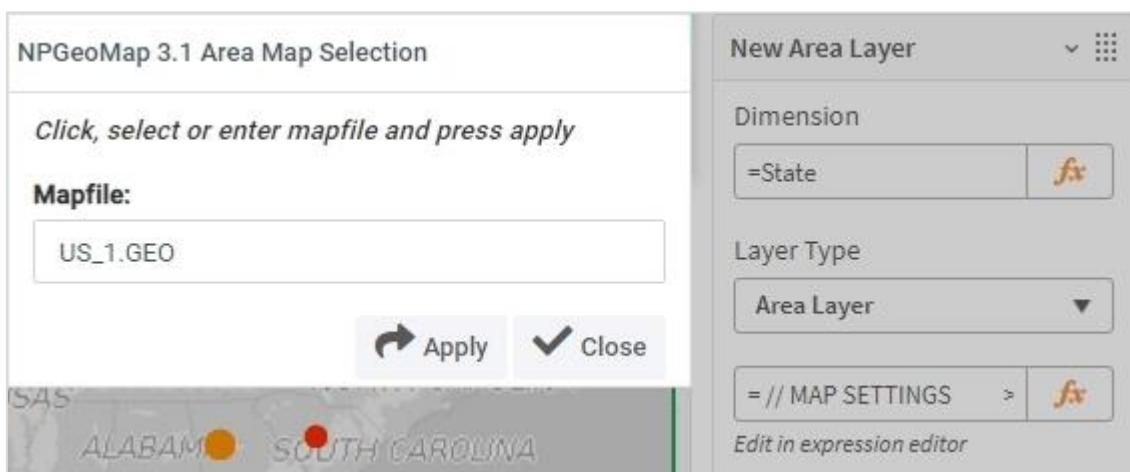
As the US states come with the [basic map pack, included in every ancoreMaps installation](#), and the dimension values match, the wizard automatically sets "US_1.GEO" as the correct **Mapfile**, containing the polygon coordinates.

The field "ID" in the map file is linked to the values of the dimension field "State" in Sense.

ancoreMaps map file names always use the **ISO2 code**, an underscore "_" and 0, 1 or 2 for the organizational **level** of the respective country (0 = country/state, 1 = region/state/province/..., 2 = district/municipality/...). Hence, US states = "US_1.GEO".

All map files are located within the ancoreMaps installation directory in the subfolder "maps".

Click on **Apply** and then **Close**.





8 - Style Area Map

To format the polygons and set a popup navigate to MAP SETTINGS and open the expression editor (fx).



Enable the needed settings by deleting the double slashes `//` at the beginning of each row (color of the code will change) and then set the following (by copy paste from here):

& '#Color%=' & Sum(Sales)

(to set the color of markers according to classes as well)

& '#Opacity=' & 50

(reduces the opacity of polygons by 50% and makes them translucent)

& '#BorderColor=' & 'white'

& '#Popup=' & '

' & '' & State &''& '
' &'Sales: '& sum(Sales) & '
' &'Population: '& sum(PopulationState) & '</div>'

(HTML formatted content for popups, which appear when clicking on a polygon)

The screenshot shows the 'Edit expression' dialog box. The left pane contains the following QlikScript code:

```

9  & '#Color%=' & Sum(Sales)
10 //& '#Pattern=' & 'dot'
11 & '#Opacity=' & 50
12 & '#BorderColor=' & 'white'
13 //& '#BorderSize=' & 1
14 //& '#Label=' & ''
15 //& '#LabelPosition=' & ''
16 //& '#Tooltip=' & ''
17 & '#Popup=' & '

' & '<b>' & State &'</b>'& '<br>' &'Sales: '& sum(Sales) & '<br>' &'Population: '& sum(PopulationState) & '</div>'


```

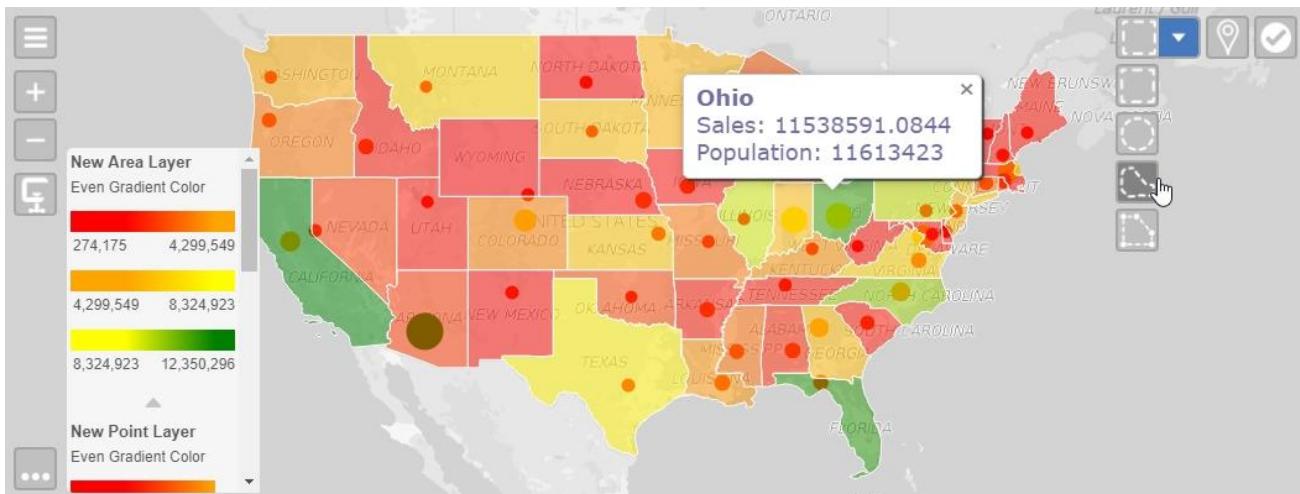
The right pane includes a 'Fields' section with a dropdown for 'Filter by table' (set to 'All tables') and a 'Field' dropdown (set to 'State'). Below it are sections for 'Aggregation functions' and 'Functions'. At the bottom are 'Cancel' and 'Apply' buttons.

Click **Apply** and exit the Sense "Edit mode".

Now you can also see the US states as areas in the background, colored in different gradients, according to the "Sales" value of each state.

If you click on a polygon, you can see the popup with the respective name of the state as well as its sales value and the summed up population.

By double clicking an area you can select a single one, or use the selection tools in the upper right corner of the map for analytic selections.



The area layer is now on top of the point layer.

To change this order and display the markers in the front, just drag and drop the added layers in the property panel.

9 - Configure Classes

Let's do a little finetuning before we finish.

Go back to Sense Edit Mode and open the expression editor of **Classes & Legends**. - for both, MARKER (points) and MAP (areas / polygons).

There you can edit and format the Legend and customize the classes for the colors and sizes of cities and states.



Change the class type:

```
36 "Class":  
37 /* assign the respective Class for each Map Setting:*/ &  
38 {  
39     "color": "EVEN_GRADIENT_COLOR",  
40     "image": "EVEN_RANGE_IMAGE",  
41     "imagesize": "EVEN_GRADIENT_SIZE"  
42 },
```

```
45 "EVEN_GRADIENT_COLOR":  
46 {  
47     "type": 2,  
48     "showlayercaption": true,  
49     "caption": "Even Gradient Color",  
50     "legend": true,  
51     "collapsed": false,  
52     "numberformat": "0,0",  
53     "nullvalue": "",  
54     "values":  
55     [  
56         "red",  
57         "orange",  
58         "yellow",  
59         "green"  
60     ]
```

You will find lots of helpful tips and information throughout all expressions in ancoreMaps.

10 - Finish

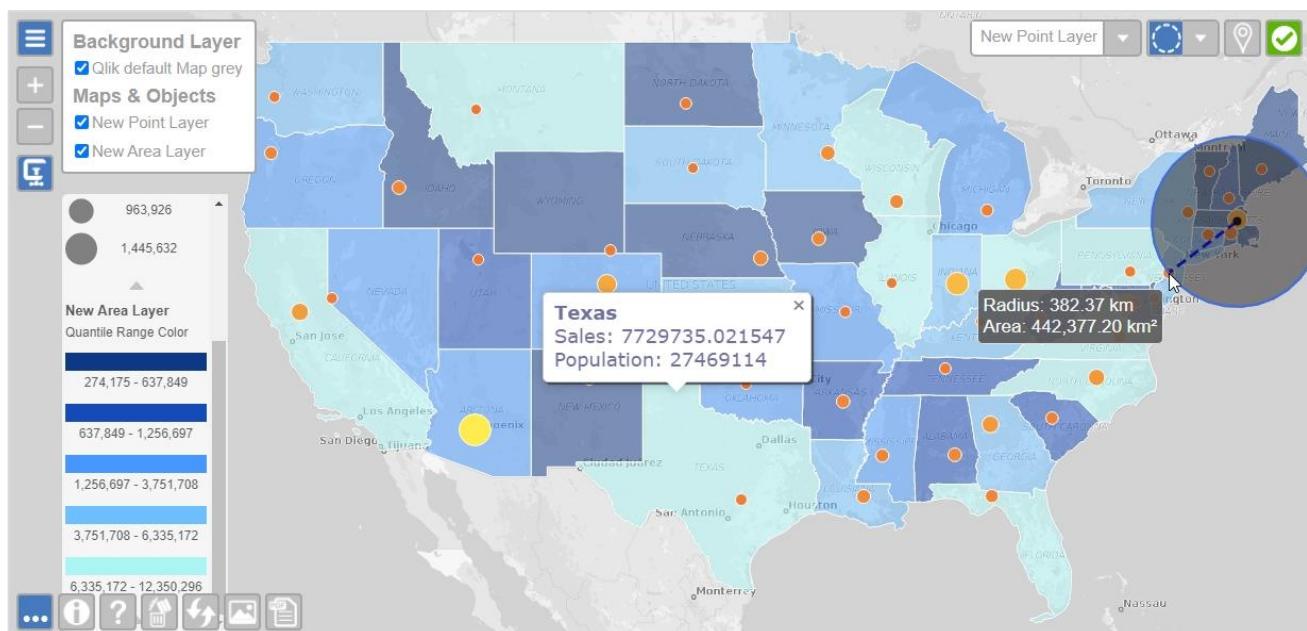
Now enjoy exploring the data on your map!

But this is just the beginning, ancoreMaps can do much more for you:

Distances and relations, railways, flight routes, tooltips with HTML content, popups with Sense objects and visualizations, charts, cluster, Heatmaps, Radial Spheres (circles), Isochrones (travel time area around a location) and many more...

Download the completed Sense demo app [here](#).

Learn more at ancoresoft.com



*ancoreMaps was formerly named NPGeoMap