

# GIS Map

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## Getting Started

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Yellowfin has the capability to render GIS data (points and polygons) into an image which can be overlaid with your report data. To enable GIS reporting you must have GIS data available in the databases you wish to query for reporting.

## GIS from a Non-GIS Supported Database

Not all databases support GIS natively. However, Yellowfin can convert VARCHAR fields into polygons. So if your data base does not have a GIS field type you can still store your GIS polygons in that database as a VARCHAR.

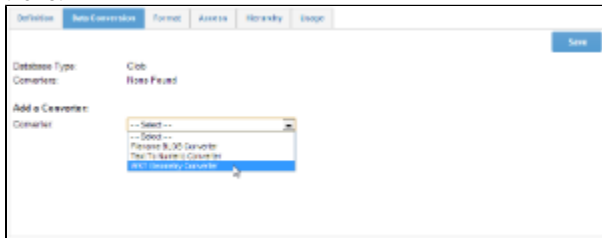
This Section shows you how to format a field with a polygon stored as a VARCHAR.

1. Double Click the **Geo Polygon** to format the field and set the geometry. You will see that it is a CLOB field type.

2. Navigate to the **Data Conversion** tab for the Conversion.



3. Select the **WKT Geometry Converter** from the list.



4. Set the format as **Longitude/Latitude**, the Cache Field to **Country** (this should be a unique identifier for the polygon).

5. Click **Add** to add the converter to the field.



6. You should now see the **WKT Geometry Converter** in the Converters list.

Definition | **Data Conversion** | Format | Access | Security | Design

Database Type: Data  
 Converter: gRPC Geometry Converter  
 Converted Data Type: GIS Geometry

Add a Converter:  
 Converter: ... Select ...

Save

7. If you return to the Definition tab you will see that under the Data Type there is now a Converted Data Type of **GIS Geometry** listed.

8. **Save your field.** You can now begin creating your report.

Save

Definition | Data Conversion | Format | Access | Security | Design

Name / Table: GEOPOLYGON / AgencyCountryGeometry  
 Business Name: GeoPolygon  
 Description: GeoPolygon

Category: Create Location  
 Data Type: Data  
 Converted Data Type: GIS Geometry  
 Field Type: Dimension

Save

## GIS from a Supported Database

If your data source supports GIS columns such as MySQL, Oracle, PostgreSQL or MS SQL Server 2008 you can connect to these directly for reporting. This type of field is not available in the Tutorial database but below is a quick guide to setting the field types at the view.

1. Once you have attached your fields to the view double click the field to set the GIS Format.

As seen on the right the field is a GIS Multi Polygon.

Definition | Format | Access | Security | Design

Name / Table: view / Geometry  
 Business Name: view  
 Description: view

Category: report  
 Data Type: GIS Multi Polygon  
 Field Type: GIS Multi Polygon

Save

2. Navigate to the Format tab and set the Format to either **Latitude/Longitude** or **Longitude/Latitude** depending on the order of the points within the data.

3. **Save** the field settings and then save your view. You are now ready to use these fields for reporting.

Save

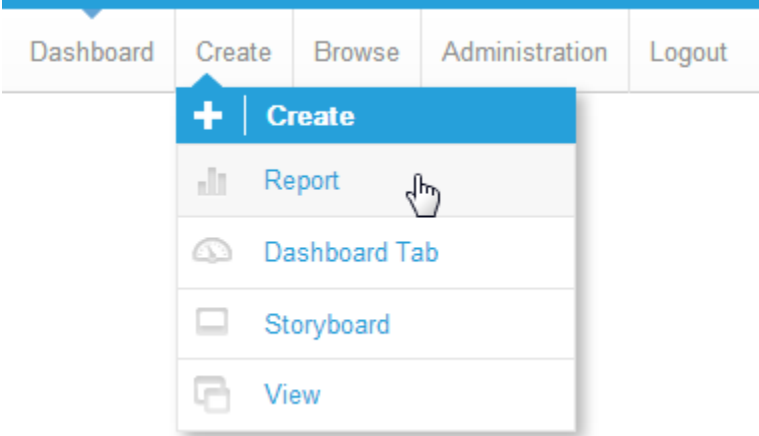
Definition | **Format** | Access | Security | Design

Field Type: Dimension  
 Converted Data Type: GIS Multi Polygon  
 Format: Longitude/Latitude  
 Custom Field: Custom Geometry  
 Format: Default Geometry

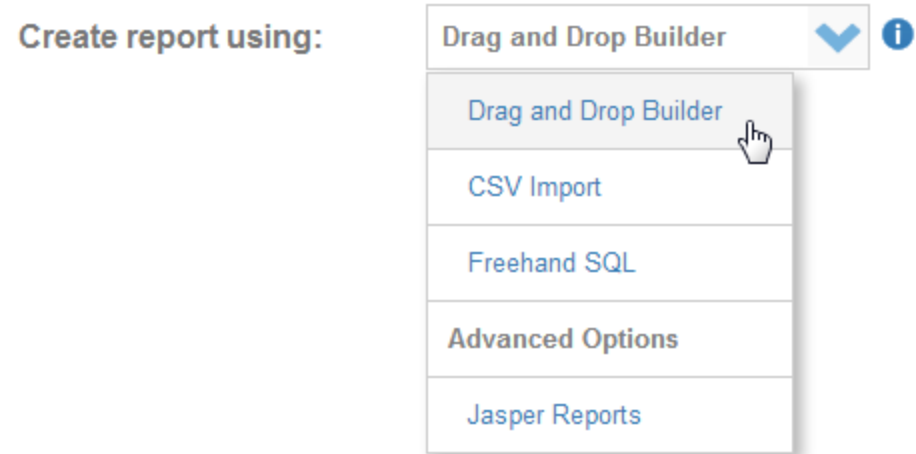
Save

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1. Click on the **Create** link and select **Report** to begin building your report.

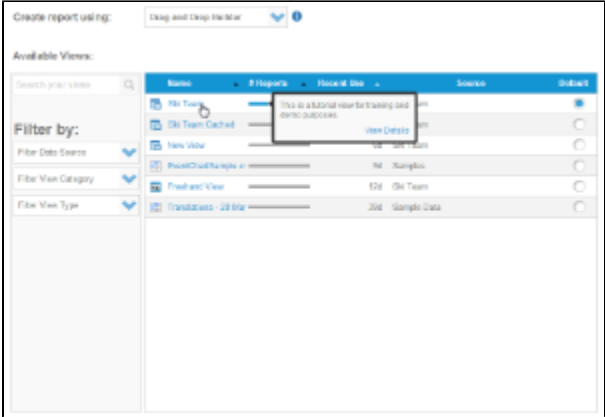


2. You should now be on the Initialise Report page. Select the **Drag and Drop Builder** as the build tool.



3. Select **Ski Team** as the View.

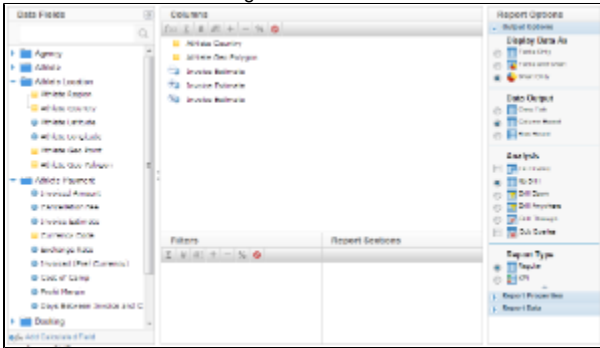
4. Now click the  button to proceed.



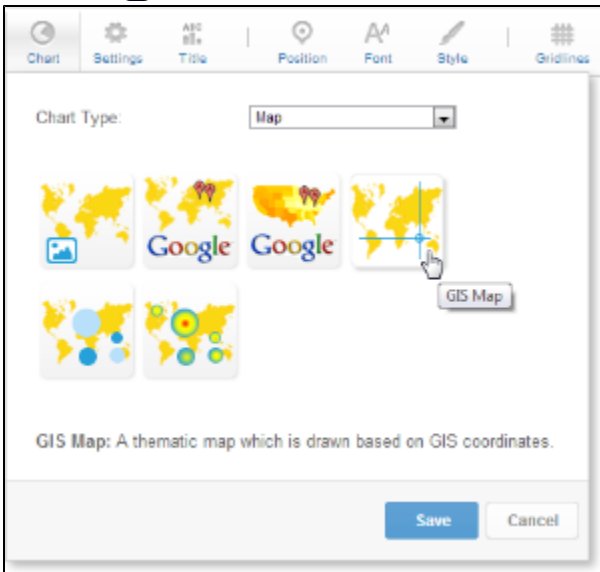
5. Drag in the **Country** and **Geo Polygon** fields.

6. Now drag in your metrics, in this example **In voice Estimate** is used three times, as a **MIN**, **MAX**, and **AVERAGE**.

7. Set the report to display as a **Chart Only**.



**Save**



11. You will now see the Chart Data section updated with fields relevant to GIS Maps.

12. Select:

GIS Field: **Athlete Geo Polygon**  
Metric: **Max Invoice Estimate**  
Label: **Athlete Country**

13. Click **Refresh** to generate the map.

**Refresh**

**Chart Data**

**Select Data**


GIS Field: ● Athlete Geo Polygon

Metric: ● Min Invoice Estimate

**Label**

- ☒ Athlete Country
- ☐ Athlete Geo Polygon
- ☐ Min Invoice Estimate
- ☐ Max Invoice Estimate
- ☐ Avg Invoice Estimate

● Mandatory Field

 **Refresh**

14. In the Chart Format options, select **Visible Series Selection**.

Settings | Title | Position | Font | Style | Plot | Chart Area

**Chart Size & Position**

Width: 600

Height: 800

**Chart Interaction**

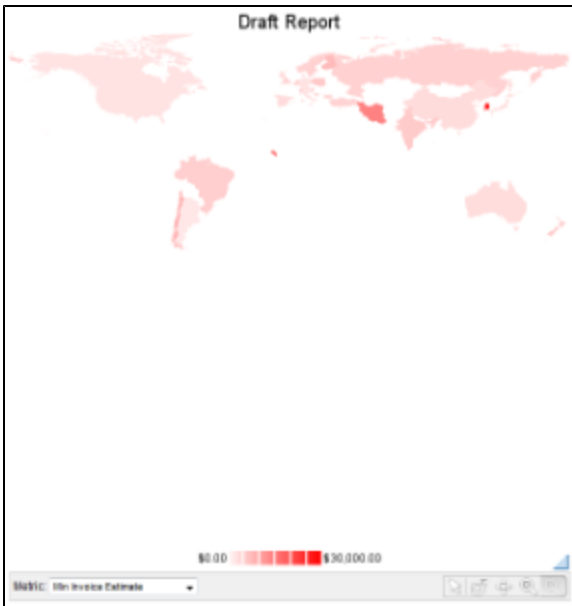
Visible Series Selection: ☒ Yes ☐ No

Bottom Navigation: ☒ On ☐ Off

Hover Navigation: ☐ On ☒ Off

**Save** **Cancel**

15. You should now have a map like the one pictured here. Much like the raster map, this one needs resizing so that the legend is closer to the highlighted areas.



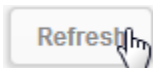
16. Now add a layer to the map that will fill in all the country polygons that contained no data.

17. Click on the [Add Layer](#) link

18. Select the **GIS World Background** report that comes with Yellowfin.

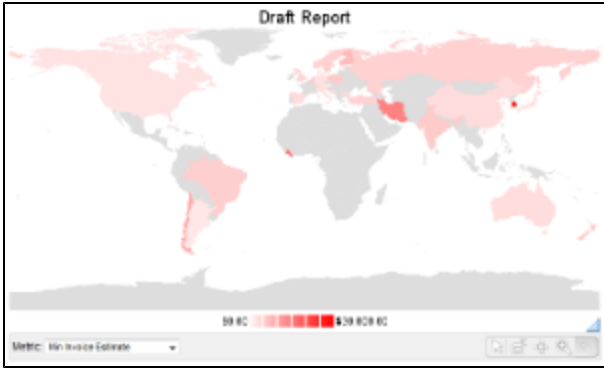


19. Set the colour of the new layer to a light grey and click **Refresh**.



20. You should now have a map that looks like this.

21. Save and Close your map.



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