

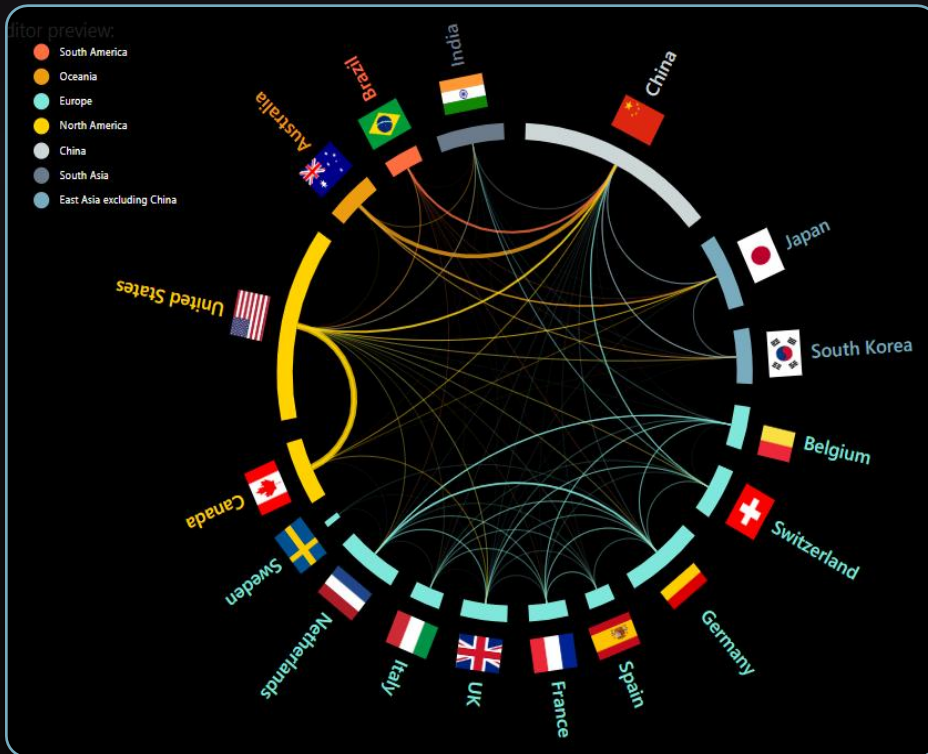
Start with PowerBI

"From Rookie to Rock"

Step
By
step



Chord Diagramm (with Charticulator)



Patou Tips #41



About the project...

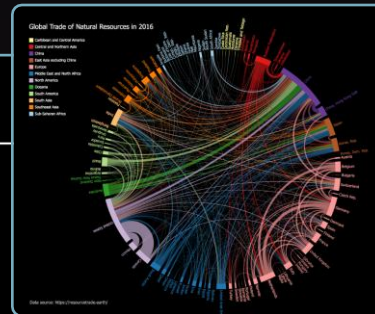
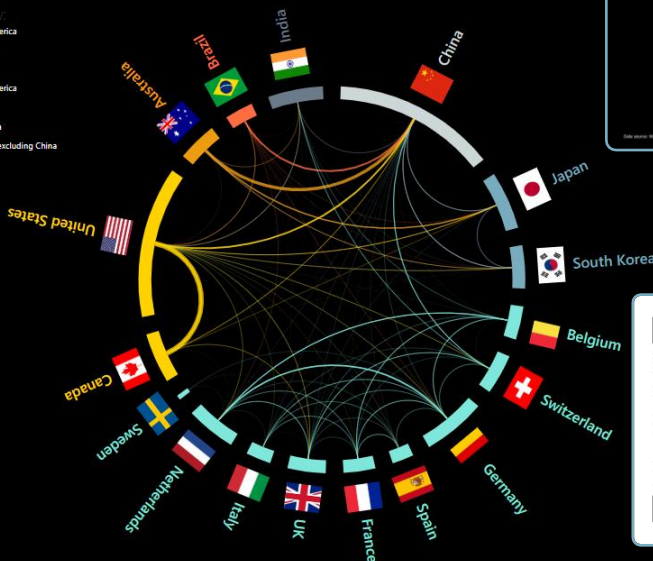


Charticulator is really a great application and also a great visual application for PowerBI to create fantastic charts like in Statista.

Chord Diagramm (with Charticulator) Trade between Countries

Editor preview

- South America
- Oceania
- Europe
- North America
- China
- South Asia
- East Asia excluding China



The inspiration



Resources free
on GitHub
[https://github.com/
PatouTips/Patou-
Tips](https://github.com/PatouTips/Patou-Tips)

Start with PowerBI

"From Rookie to Rock"

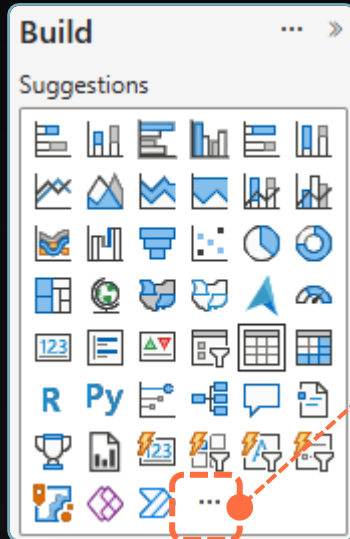
Create a Chord Diagramm



1

Download Charticulator PowerBI Visual App

Download the Charticulator Visual app for PowerBI

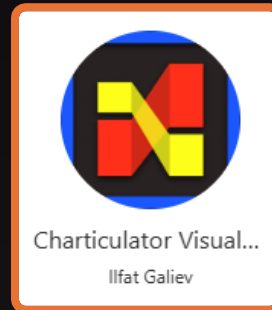


1



Choose "Get more
visuals" on the "App
source"

2



Download
"Charticulator
Visual
Community
(Editor) by
Ilfat Galiev

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

3



2

Create a Chord Diagramm

Start a chart...

1



Choose
"Charticulator"
on the build
pane.

2

Drag and drop
the data fields
for the chart in
the "Build Pane".

Data	
id	× >
Name	× >
Region	× >
Sum of Total	× >
Flag Name	× >
+Add data	

Links	
source_id	× >
target_id	× >
Region	× >
Sum of Amount	× >
+Add data	

3

Edit	
Export data	
Show as a table	
Remove	
Spotlight	
Sort axis	>
Format	
New visual calculation	>
Set up a verified answer	

A window appear,
in the top right
corner click on
the "..." and
choose "Edit" to
launch
"Charticulator"

Start with PowerBI

"From Rookie to Rock"

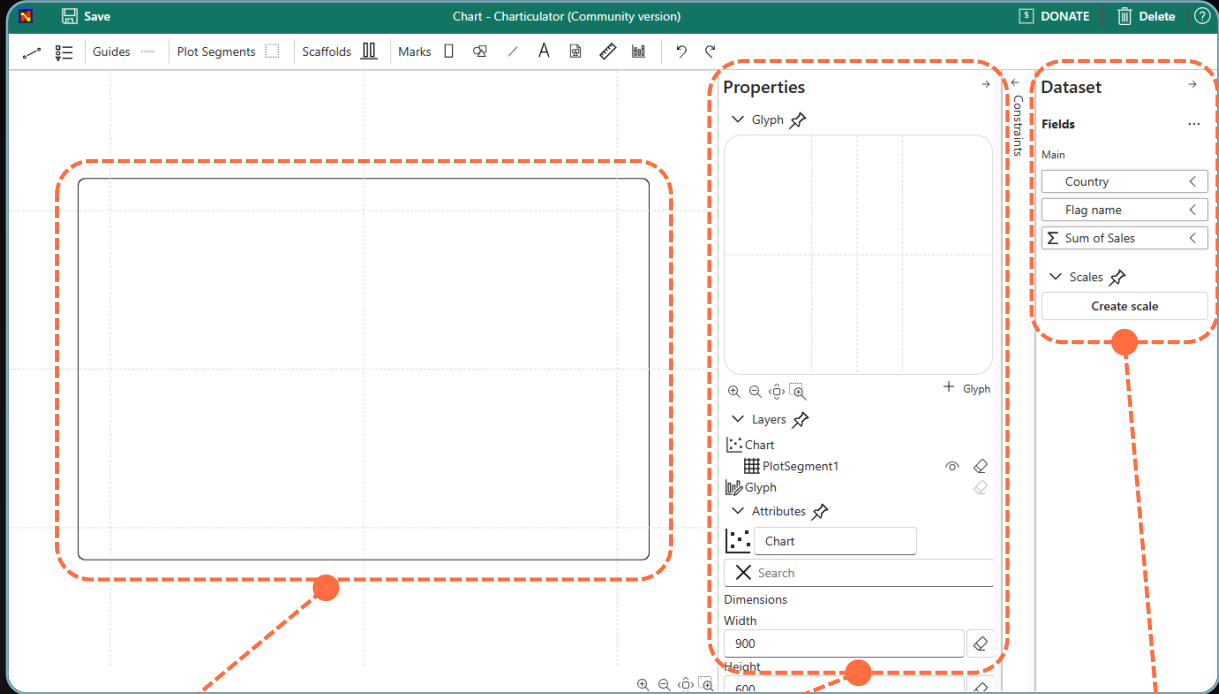
Create a Chord Diagramm

2

Create a Chord Diagramm About Charticulator screen



It looks a bit like a PowerBI screen, really pratic!



Result screen, all
the transformations
appear here

Properties and Glyphs
Panel, this is the
graphics generator

Dataset pane,
data selected in
PowerBI appear
here

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

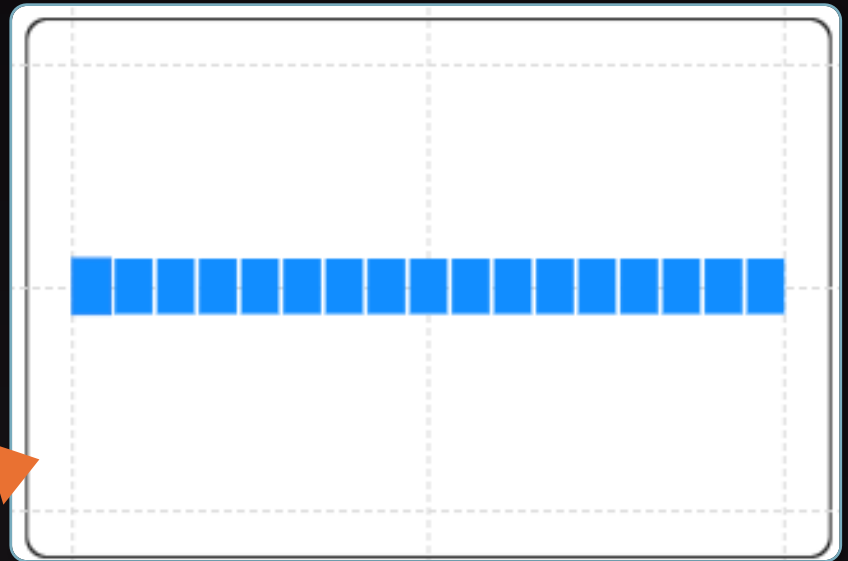
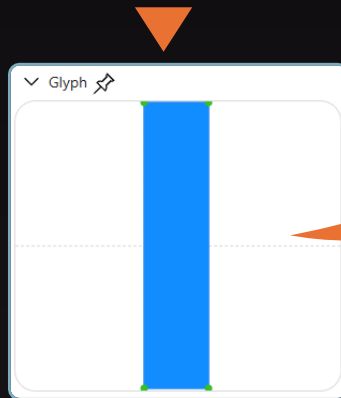
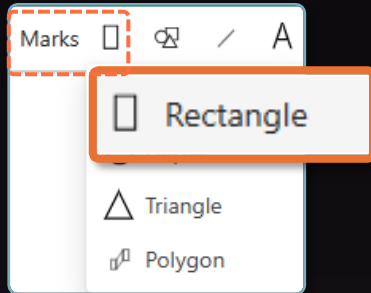
2

Create a Chord Diagramm

Main form



Select the "Rectangle" in the marks menu, and draw a shape in the middle of the Glyph window from the Properties pane



Result

Note: There are 17 rectangles because there are 17 countries

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

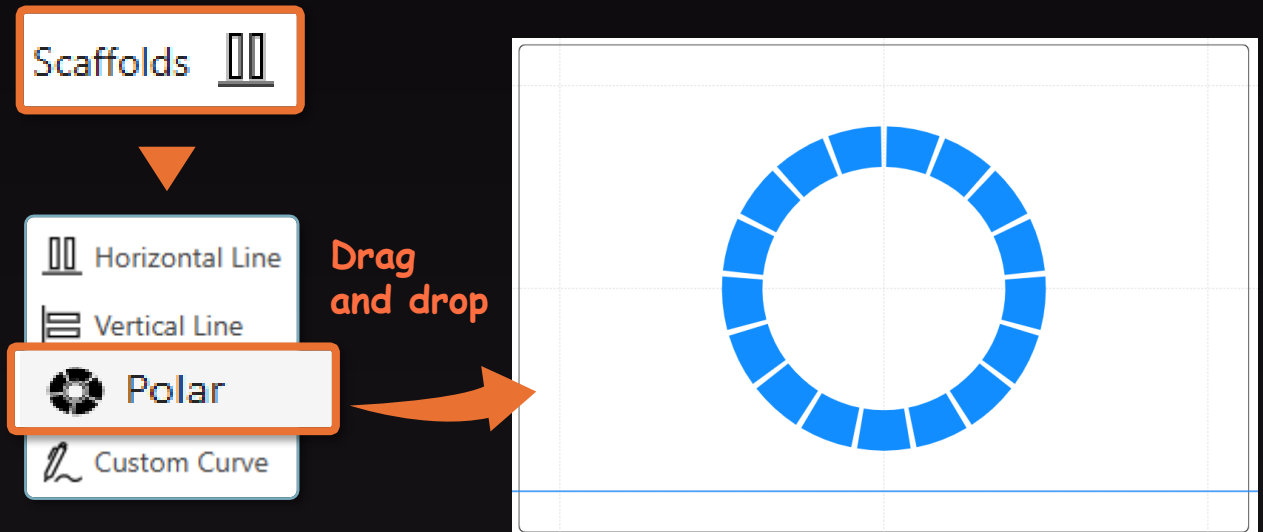
2

Create a Chord Diagramm

Transform Bar Chart into Radial Bar Chart



Select the button "Polar" in the menu "Scaffolds" and drag and drop hover the graphic



Result:

Bar Chart are transformed into a Radial Bar Chart

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

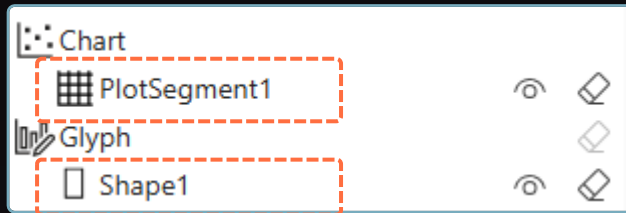


2

Create a Chord Diagramm

Rename created objects

Rename the created object, "Graphic" and "Main Form" for clarity in building the project



Before



After



Start with PowerBI

"From Rookie to Rock"

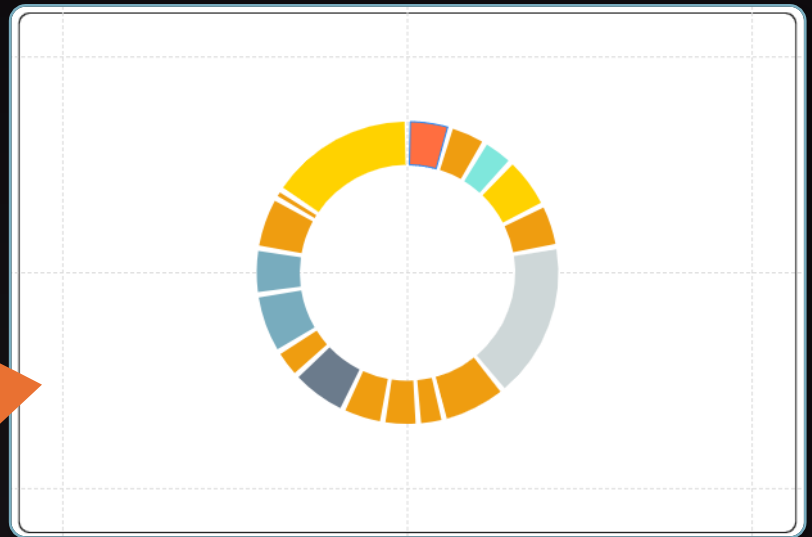
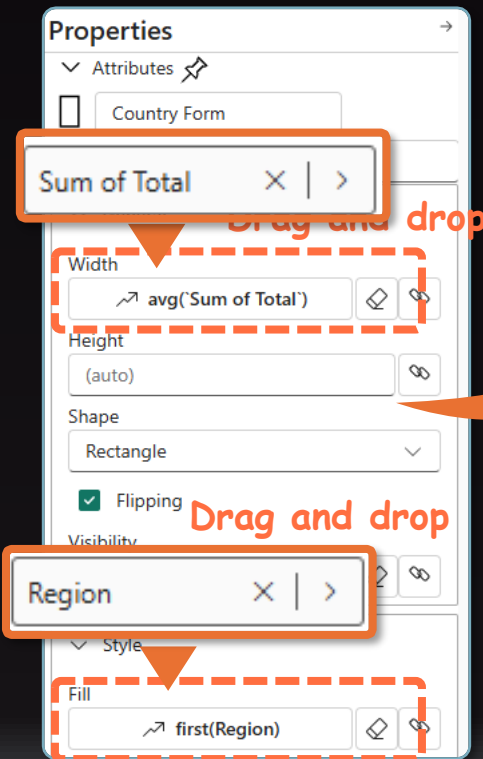
Create a Chord Diagramm



2

Create a Chord Diagramm Transformation of the Rectangle

Drag and drop the fields "Sum of Total" from the "dataset pane" in the field "Width" in the attributes part of the field "Country Form", and "Region" in "Fill".



Result: "Rectangles" have the proportion of the provided data.

Note for colors: In the resources, load the theme json, to get the same color as I created

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

2

Create a Chord Diagram

Chart settings



Properties

Chord Diagram

Search

Data Filter by Group by...

Polar Coordinates

Angle

0 - 360

Radius

Inner: 0.7

Outer: 0.8

Change the settings in the attributes of the "Radial Bar Chart"...

Radial Bar Chart

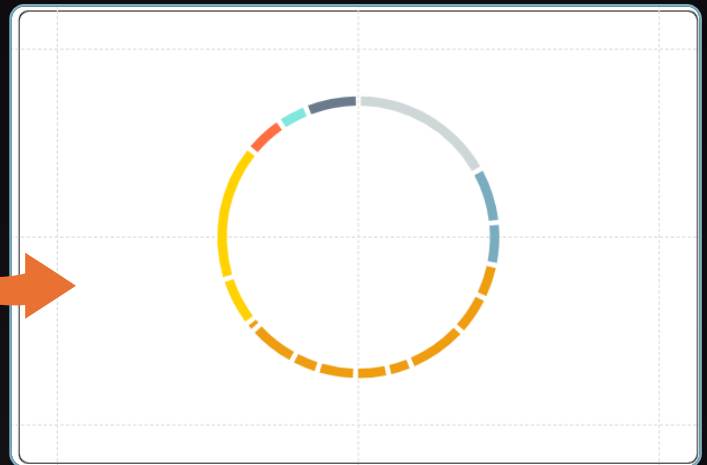
Unselected

Name Unselected

Region First

Flag Name Unselected

Sum of Total Unselected



Result:

The radial bar chart becomes thinner and the colors are organized by region

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagram

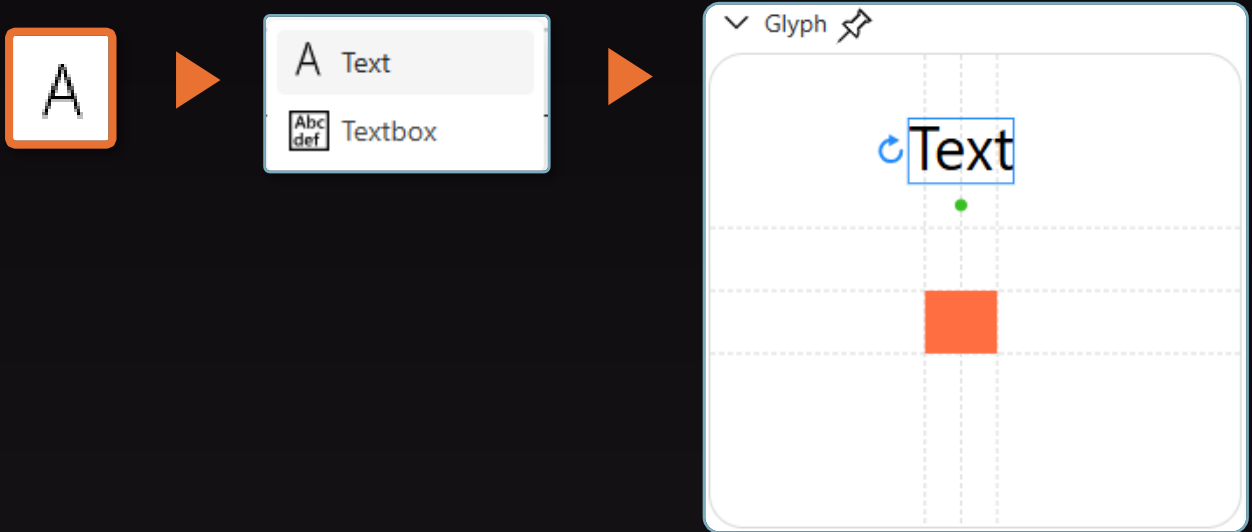
2

Create a Chord Diagram

Add "Country Name" (1/2)



From the "Text" menu, choose "Text" and draw a shape in the Glyph window from the Properties pane



The green dot is very important and is the anchor of your text.

2

Create a Chord Diagramm

Add "Country Name" (2/2)



Properties

Attributes

A Country Name

Search

General

Text

{{first(Name)}}

Font

Segoe UI Semibold

Size

14

Visibility

Conditioned by...

Anchor & Rotation

Anchor X

Margin

45

Anchor Y

Rotation

90

☐ Ignore polar coordinate rotation

Style

Color

first(Region)

Rename "Text1" in "Country Name",
Change the settings in the
attributes.



Result

"Country" label appear into the Radial Bar
Chart

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

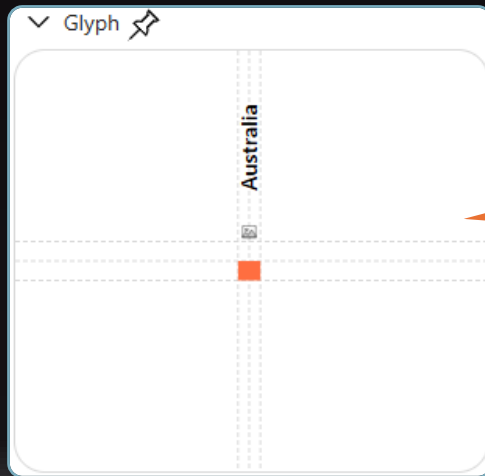
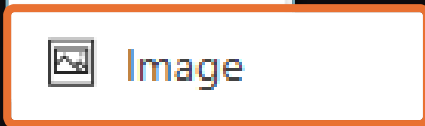
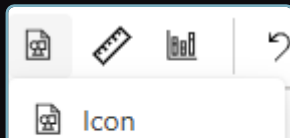
2

Create a Chord Diagramm

Add "Country Flag" (1/3)



From the "Image" menu, choose "Image" and draw a shape in the Glyph window from the Properties pane



Result

An Icon appear near of the country name

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

2

Create a Chord Diagramm

Add "Country Flag" (2/3)



Rename "Image1" in "Country Flag", Change the settings in the attributes.

Properties

Attributes

Country Flag

Search

General

Width
(auto)

Height
25

Visibility
Conditioned by...

Image

Image
 first('Flag Name')

Resize Mode
Letterbox

Align



Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

2

Create a Chord Diagramm

Add "Country Flag" (3/3)



In the dataset pane, select the flag object and assign a flag file (png format) to each country.

The screenshot illustrates the steps to assign a flag image to a country in a PowerBI dataset. It shows three main components:

- Dataset Pane:** The 'Fields' section shows 'Country', 'Flag name', and 'Sum of Sales'. The 'Scales' section shows 'Scale1', 'Scale2', and 'Scale4'. 'Scale4' is highlighted with an orange box, and its 'Flags.Image' property is also highlighted.
- Create scale dialog:** The 'Image Mapping' section shows a table with 'Austria' and '(none)' in the 'Image' column. The 'Austria' row is highlighted with a dashed orange box, and the 'Image' column header is highlighted with a solid orange box.
- File Explorer:** A window titled 'Ouvrir' shows a folder named '#37 Patou vips (Radial Bar Chart ... > Flags'. It contains a grid of flag images with their corresponding filenames: Austria.png, Belgium.jpg, France.jpg, Germany.jpg, Italy.jpg, Spain.jpg, and Switzerland.png.

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

2

Create a Chord Diagramm

Add "Legend"



From the "Legend" menu, choose "Product" and place it in the chart.



Legend type:

☒ Column values

☐ Column names

Connect by:

(select column to create legend)

id

Name

Region

Flag Name

Σ Sum of Total

Create Legend Cancel



The green dot is very important and is the anchor of your Legend. Place it and adjust settings.

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

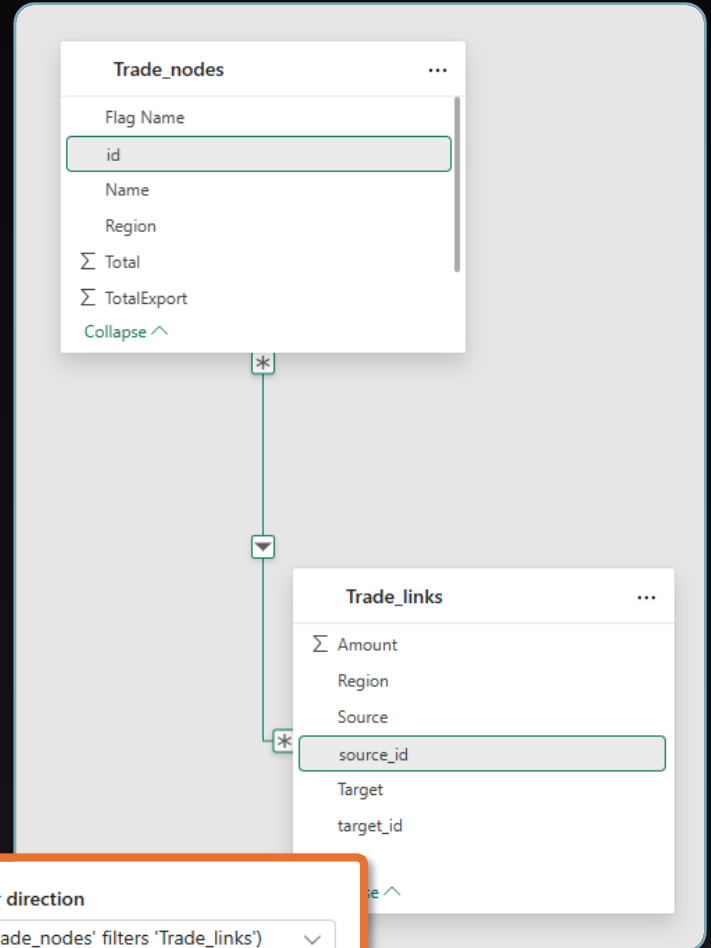
2

Create a Chord Diagramm

Modelisation of the Link



Before creating the links between countries, it is important, when modeling, to link the "Id" field of the "Trade_nodes" table to the "source_id" field of the "Trade_links" table. Also apply a "many to many" cardinality with filtering from the "Trade_nodes" table to "Trade_links".



Cardinality

Many to many (*:*)

Cross-filter direction

Single ('Trade_nodes' filters 'Trade_links')

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

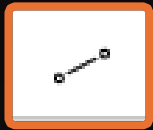
2

Create a Chord Diagramm

Create lines of the Link



From the "Link" menu, choose "Line" and "By Link Data" (cf. modelisation)



Link using:

☒ Line

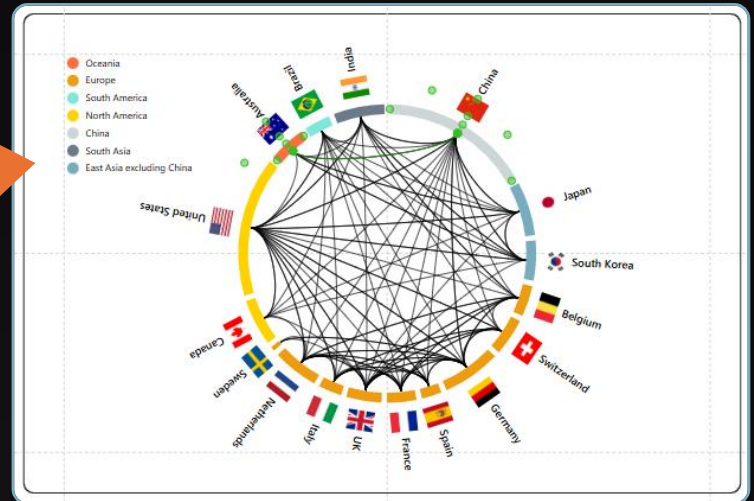
☐ Band

Link Mode:

☐ Sequentially

☒ By Link Data

Create Links Cancel



Result

Links appear between countries

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

2

Create a Chord Diagramm

Link settings



Properties

Attributes

Link Country

Search

General

Type
Arc

Line mark type
Solid

Begin Arrow Type
No Arrow

End Arrow Type
No Arrow

Style

Stroke
first(Region)

Fill
(none)

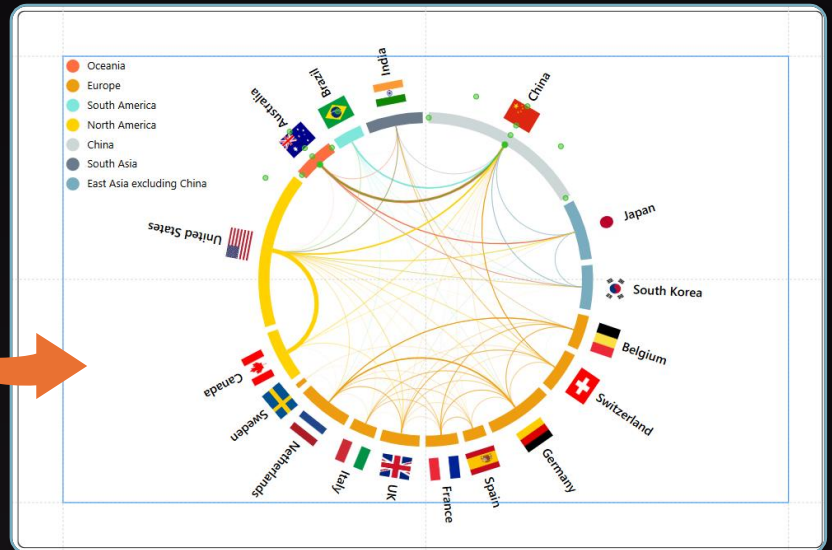
Gradient start
(none)

Gradient stop
(none)

Rotation
0

Width
avg('Sum of Amount')

Rename "Link1" to "Link Country",
modify its parameters in its
attributes.



Result

The links have the region's color, and the
link width reflects the data weight.

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm


2

Create a Chord Diagramm

Background color




You can change the color background, to have a second Nightingale Chart version.

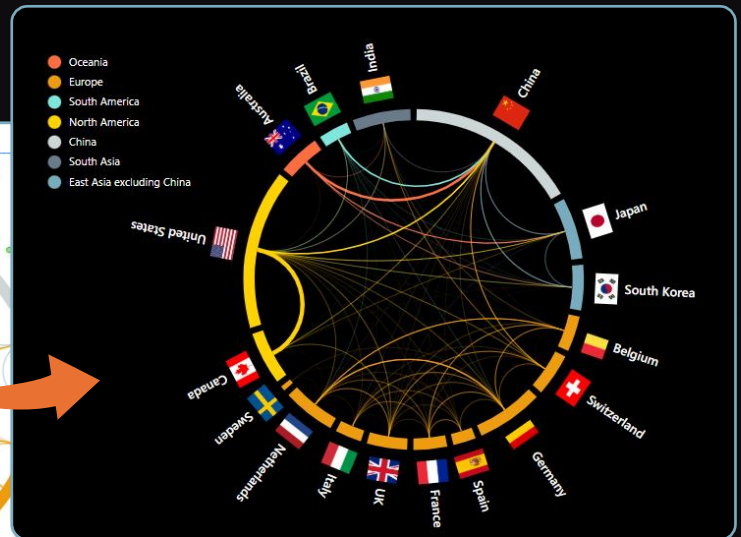
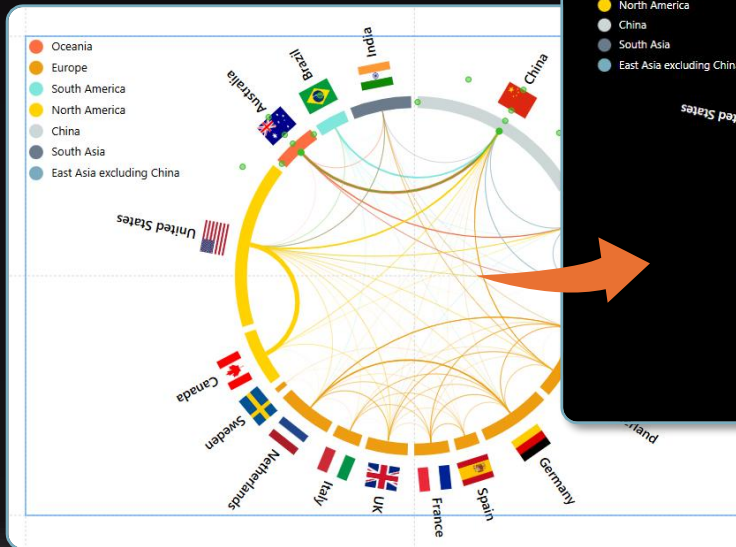
 Chart

Background

Color

#000000





Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

2

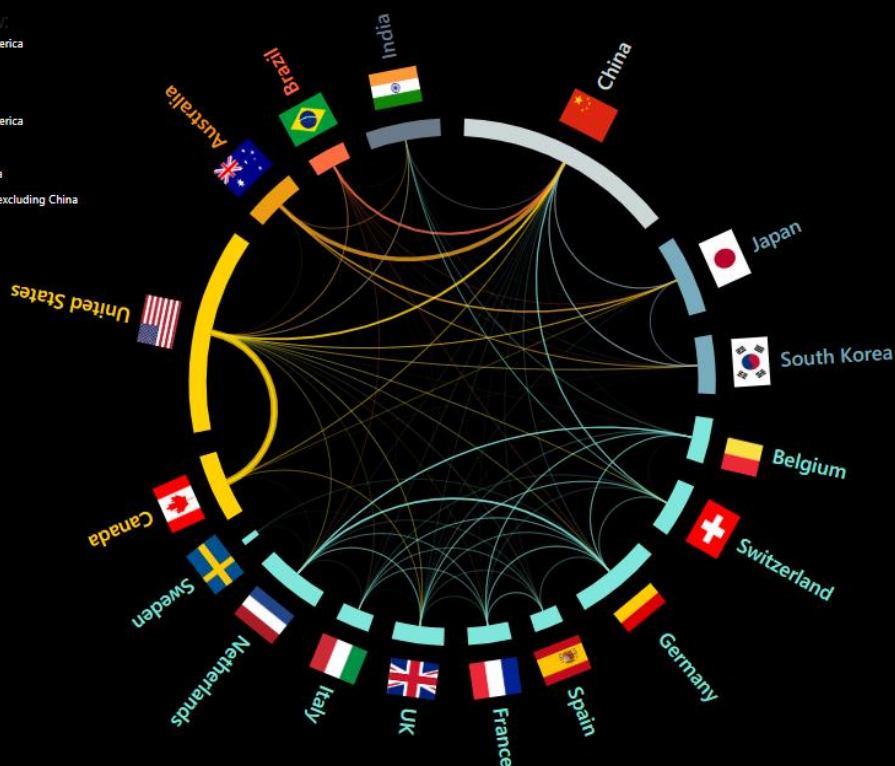
Create a Chord Diagramm That's all folks!



Chord Diagramm (with Charticulator) Trade between Countries

Editor preview:

- South America
- Oceania
- Europe
- North America
- China
- South Asia
- East Asia excluding China



Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm



Read more about Charticulator visual (community) in official documentation.

Visual documentations

Power BI Visual Editor

Charticulator

Intro

Creating Charts

Reusing charts

Using in Power BI

Gallery

Community content

Constraints editor

Visual changelog

HTML/SVG/Handlebars Visual

Apache ECharts Visual

ApexCharts Visual

Markdown & Mermaid Visual

Intro

This page describes four things that you need to learn in order to use Charticulator. The documentation based on original source of Charticulator documentation (copy is available on Donghao Ren website the author of Charticulator) This documentation is not complete, but will include new features and changes that aren't included original visual or Charticulator App.

Terminology

- A **mark** is a primitive graphical element (e.g., rectangle, line, text).
- A **glyph** is a visual representation of a single data row. A glyph contains one or more **marks**.
- A **guide** is an auxiliary element for positioning marks or glyphs. Guides do not appear in exported charts.

<https://ilfat-galiev.im/docs/charticulator/intro/>

3

Charticulator To go further...



Character Co-occurrence in Les Miserables

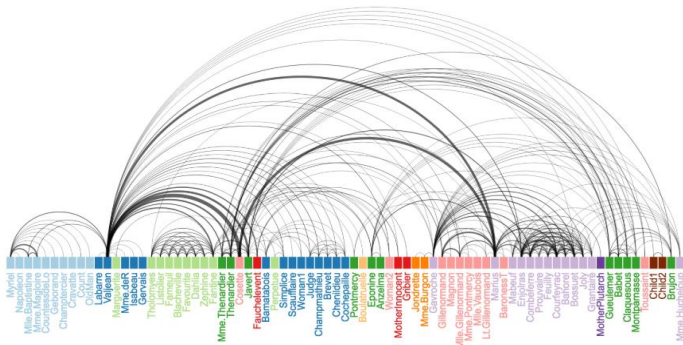
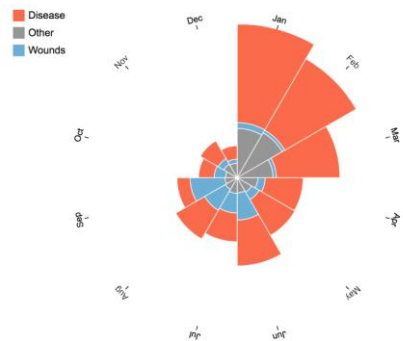
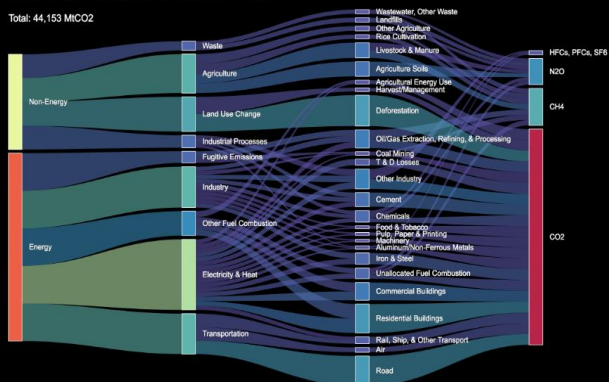


Diagram of the Causes of Mortality in the Army in the East

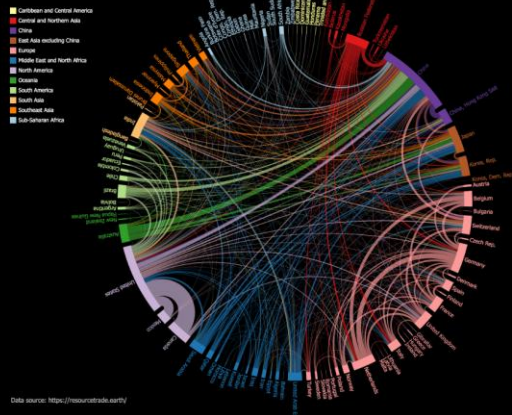


World Greenhouse Gas Emissions in 2005

Total: 44,153 MTCO2



Global Trade of Natural Resources in 2016



<https://ilfat-galiev.im/docs/charticulator/intro/>

Start with PowerBI

"From Rookie to Rock"

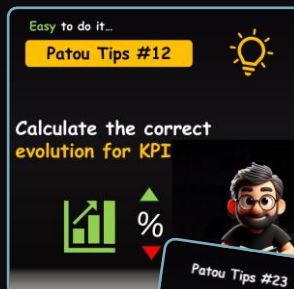
Create a Chord Diagramm

Learn and practice

On the same theme, to go further



Patou Tips #5
Create a
Customized
Chart
(for income
statement)



Patou Tips #12
Calculate right
evolution for
KPI



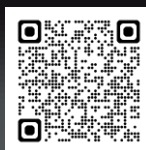
Patou Tips #6
Create
Customized Icon



Patou Tips #23
Quick Guide Visualization &
Storytelling



Patou Tips #7
Create an Age
Pyramid Chart
(for Human
Ressources)



Resources on GitHub
<https://github.com/PatouTips/Patou-Tips>

Don't forget!
This isn't the truth, it's just my truth!

Patou Tips



Follow me
Like me
Share me

