

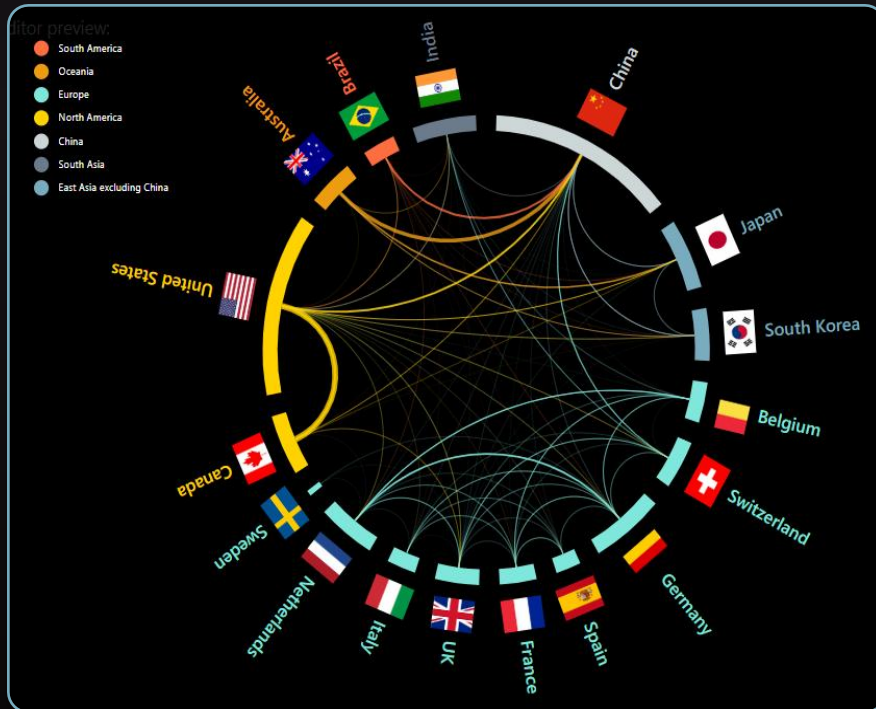
Start with PowerBI

"From Rookie to Rock"

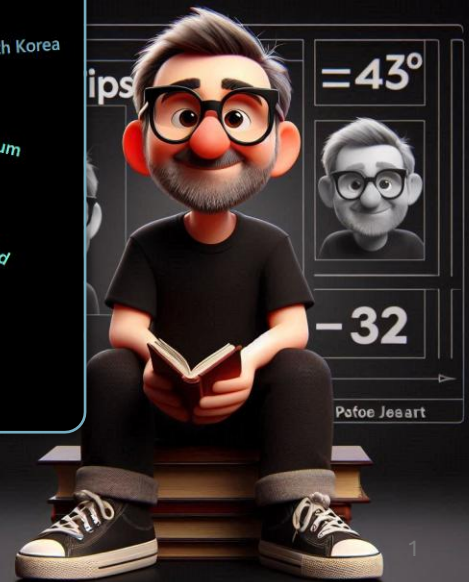


Step by step

# Chord Diagramm (with Charticulator)



Patou Tips #41



# About the project...

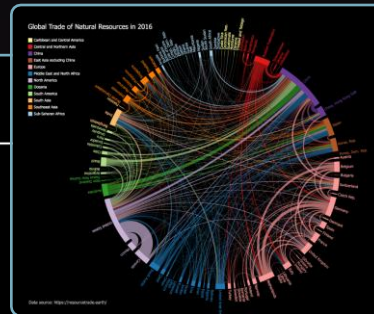
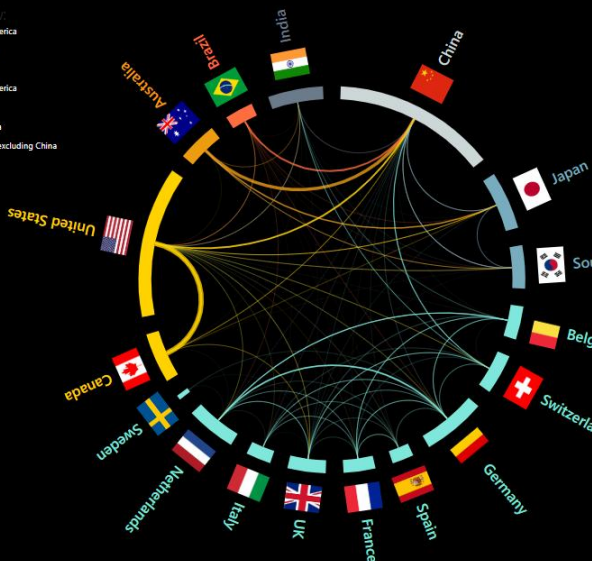


Charticulator is really a great application and also a great visual application for PowerBI to create fantastic charts like in Statista.

## 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

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"From Rookie to Rock"

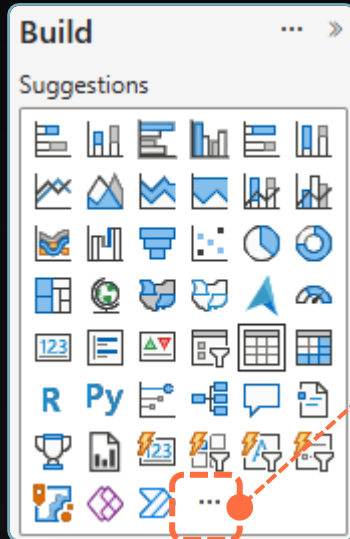
Create a Chord Diagramm



1

## Download Charticator PowerBI Visual App

Download the Charticator Visual app for PowerBI

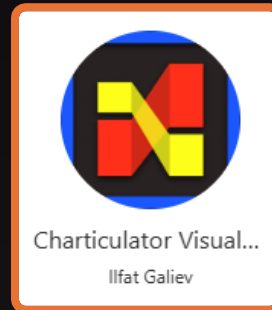


1



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

2



Download  
"Charticator  
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"

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"From Rookie to Rock"

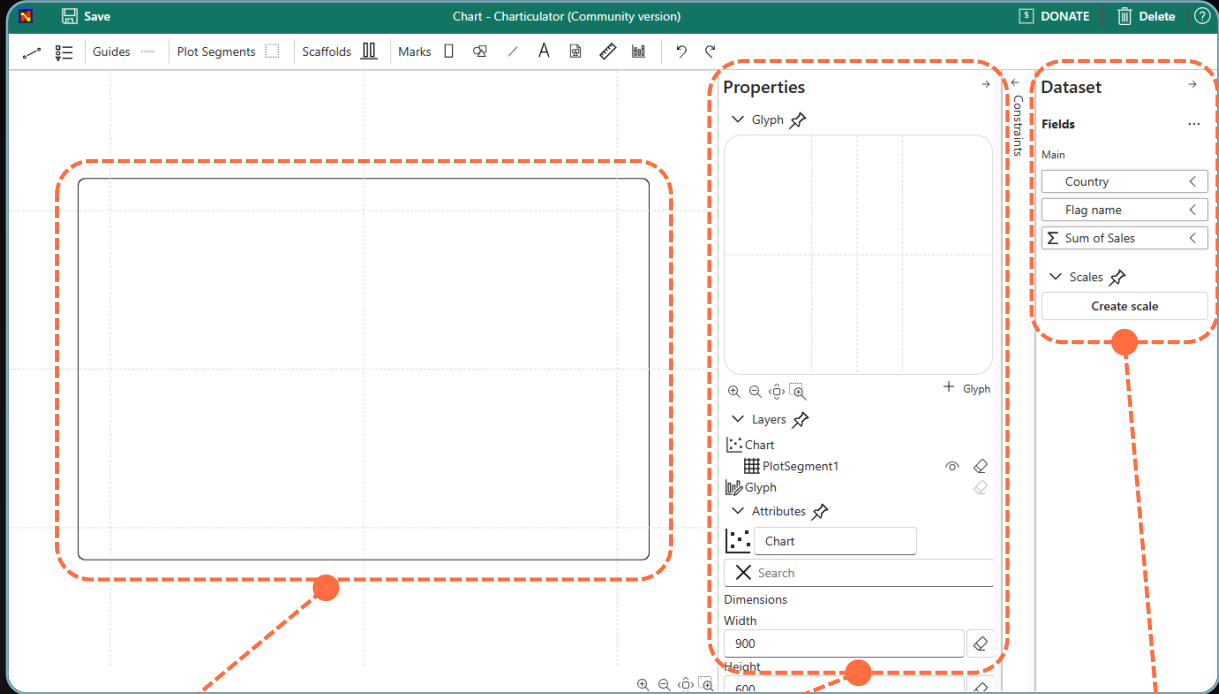
Create a Chord Diagramm

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

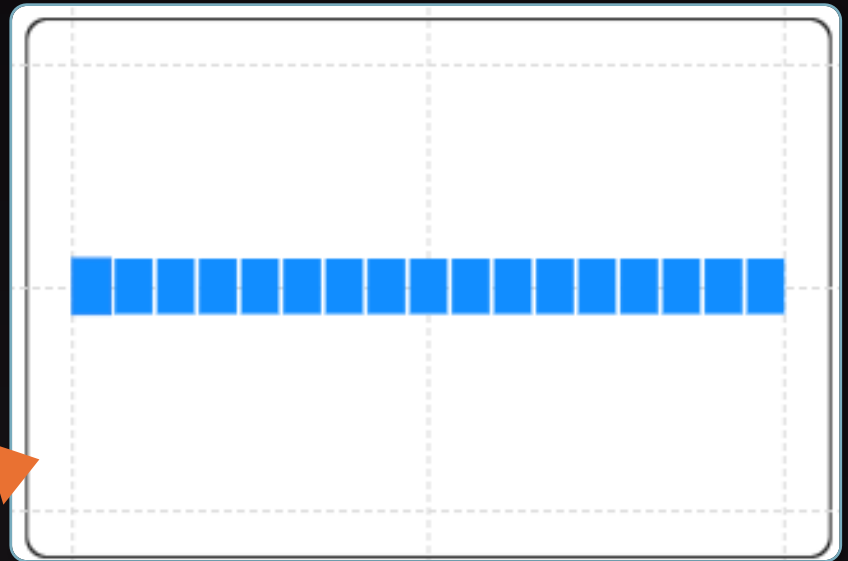
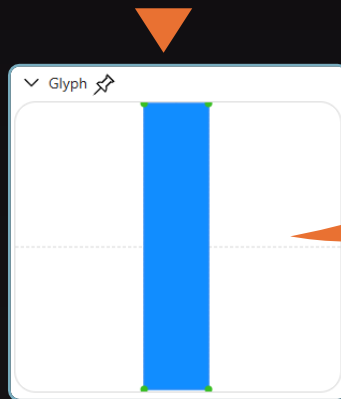
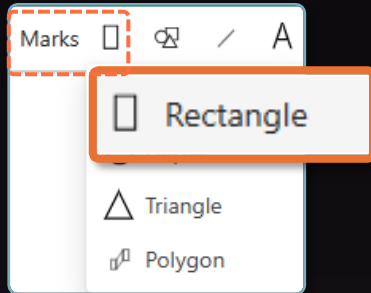
2

## 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

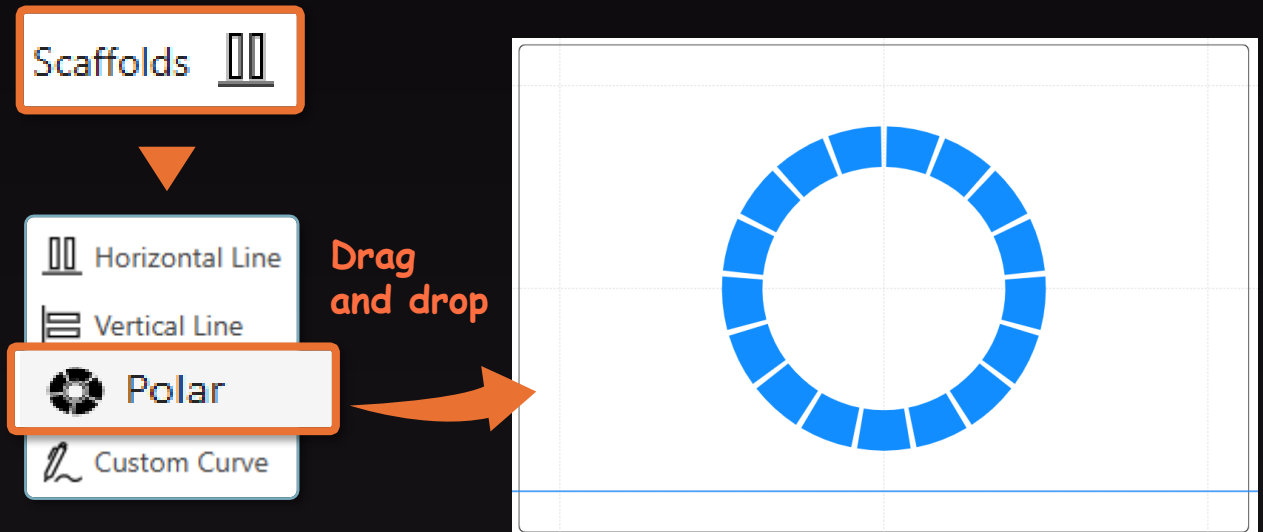
2

## 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

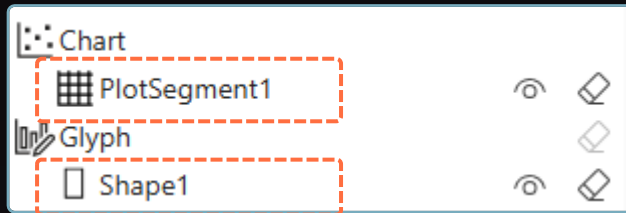


2

## Create a Chord Diagramm

Rename created objets

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

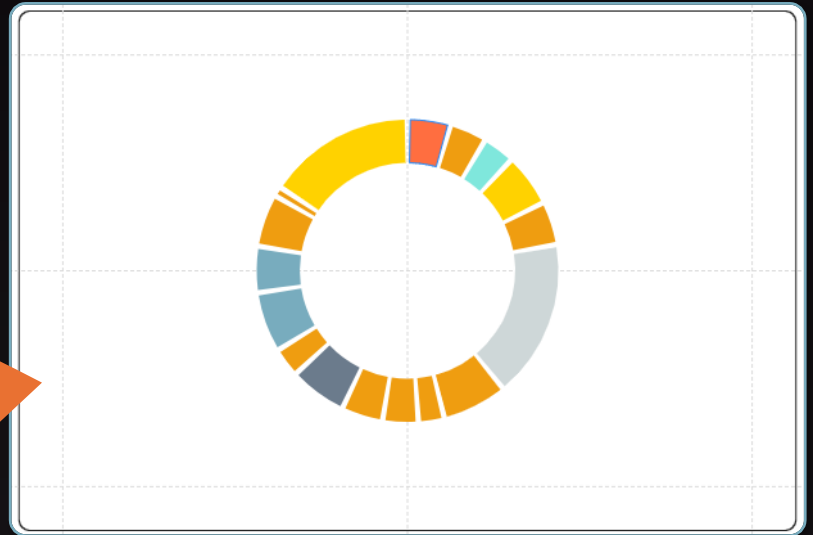
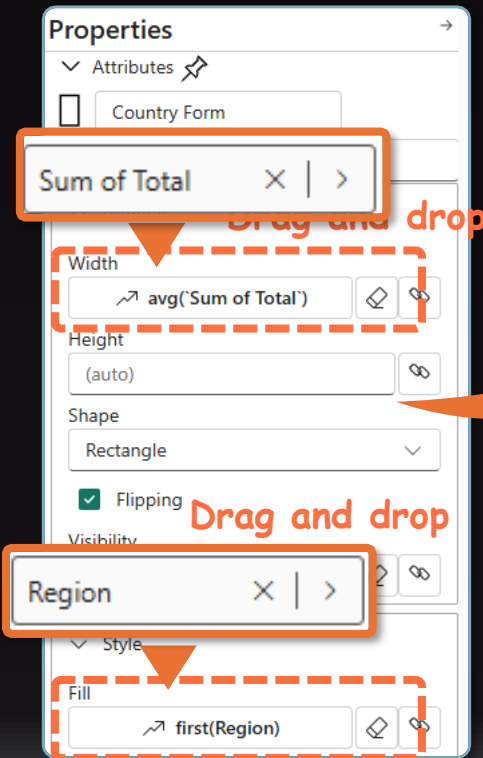




2

## 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

Menu icon

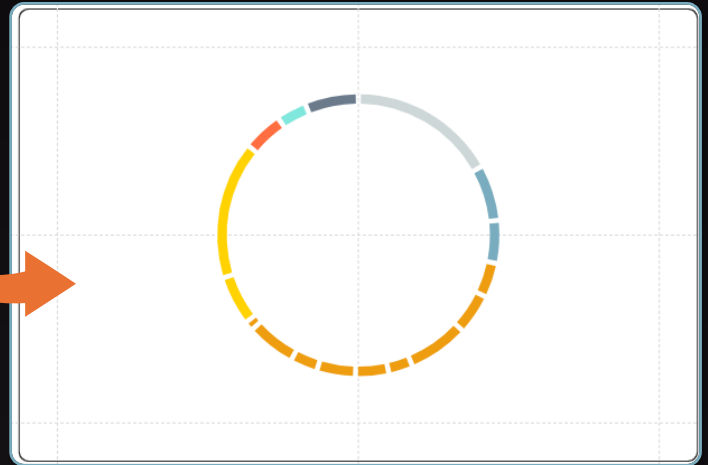
Name Unselected

Region First

Flag Name Unselected

Sum of Total Unselected

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



**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

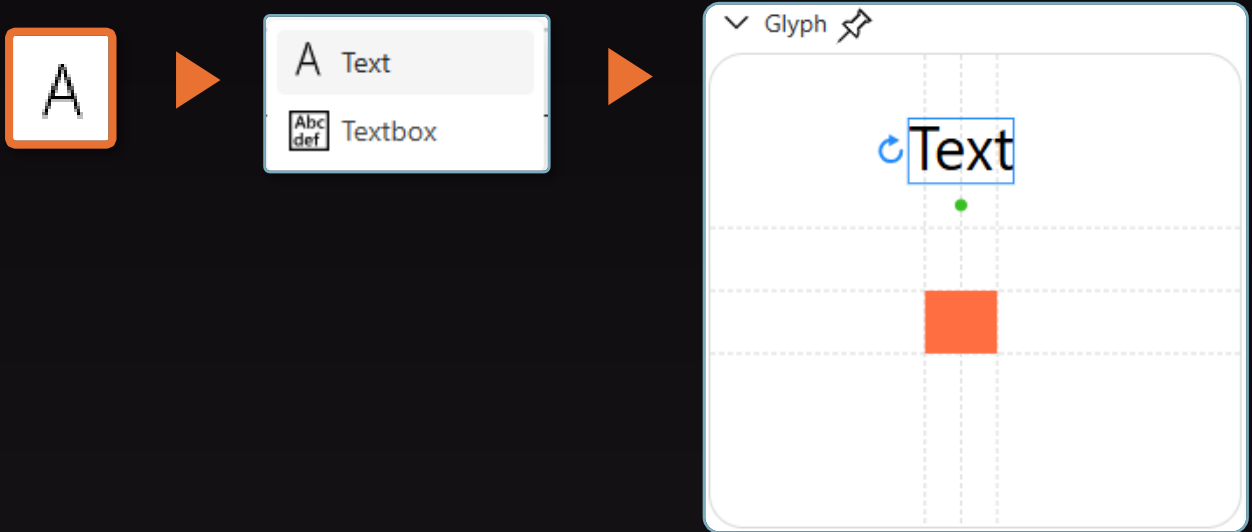
2

## Create a Chord Diagramm

### 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.

Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

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

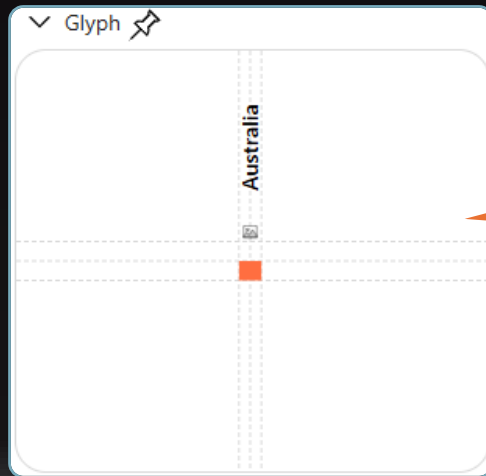
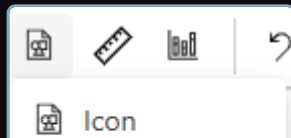
2

## 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



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"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 PowerBI. On the left, the 'Dataset' pane shows the 'Main' table with fields 'Country', 'Flag name', and 'Sum of Sales'. Under the 'Scales' section, 'Scale4' is selected and highlighted with an orange box, with 'Flags.Image' assigned to it. An orange arrow points from 'Scale4' to the 'Create scale' dialog. The dialog shows 'Scale type' as 'scale.categorical<string,image>', 'Domain source table' as 'main', and 'Domain source column' as 'Country'. The 'Image Mapping' section shows 'Austria' mapped to '(none)', which is also highlighted with an orange box. An orange arrow points from this mapping to a file explorer window. The file explorer shows a folder named '#37 Patou vips (Radial Bar Chart ...)' containing a subfolder 'Flags'. Inside 'Flags', there are six flag image files: 'Austria.png', 'Belgium.jpg', 'France.jpg', 'Germany.jpg', 'Italy.jpg', and 'Switzerland.png'. The 'Austria.png' file is selected.

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

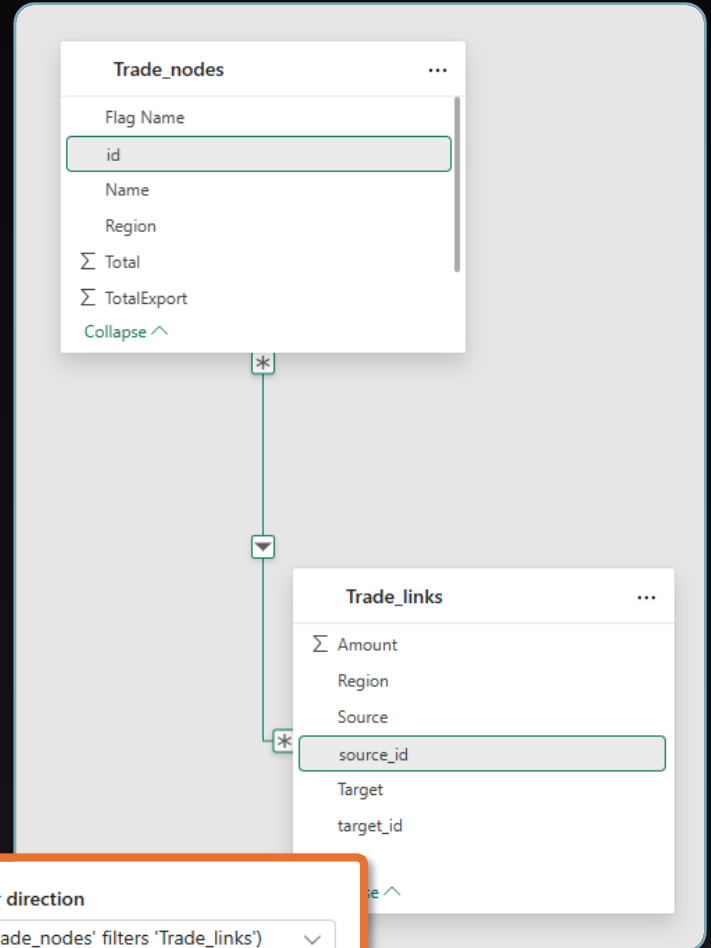


2

## 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')

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"From Rookie to Rock"

Create a Chord Diagramm

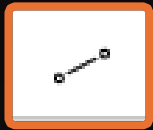
2

## Create a Chord Diagramm

### Create lines of the Link



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



Link using:

☒ Line

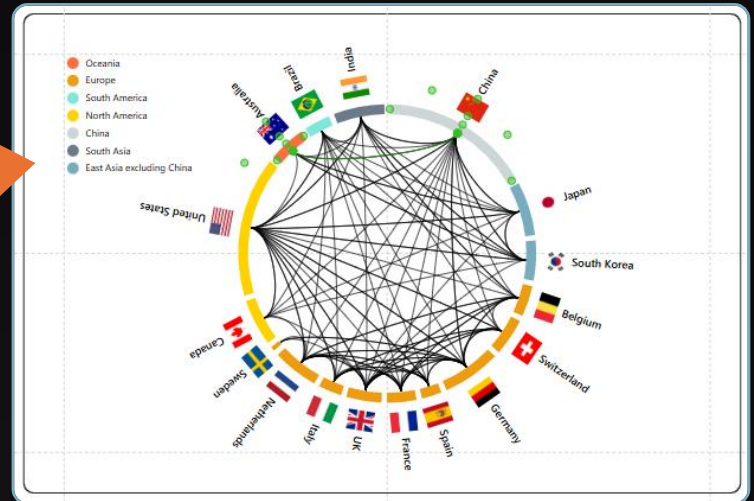
☐ Band

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)

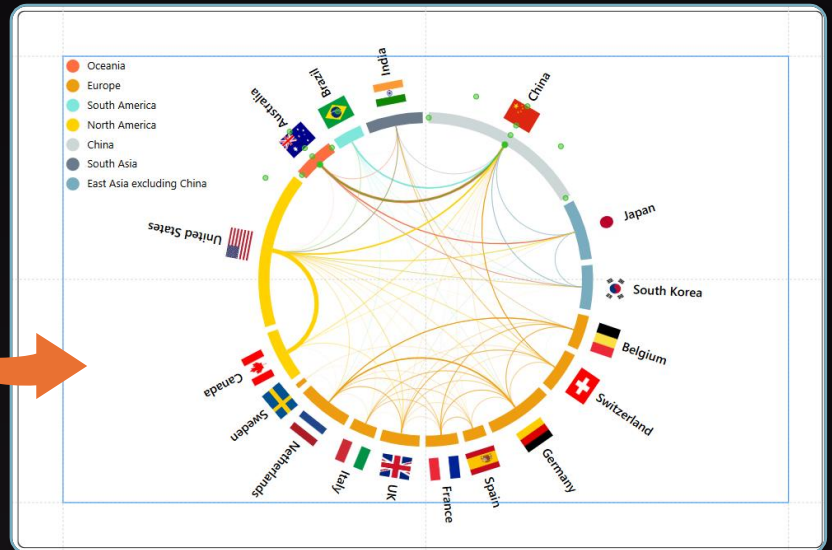
Gradient start  
(none)

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.

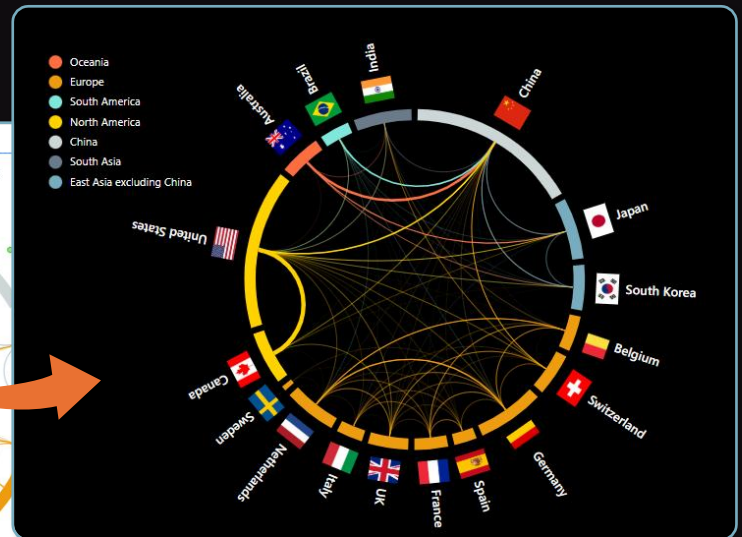
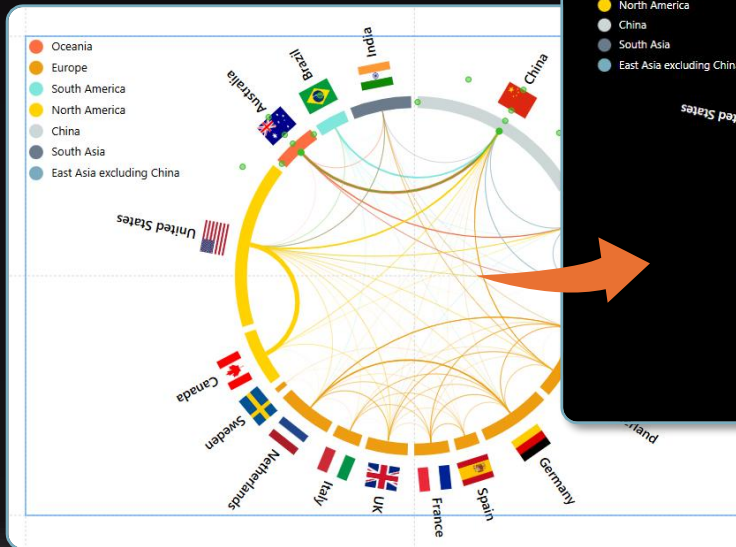
 Chart

Background

Color

#000000





Start with PowerBI

"From Rookie to Rock"

Create a Chord Diagramm

2

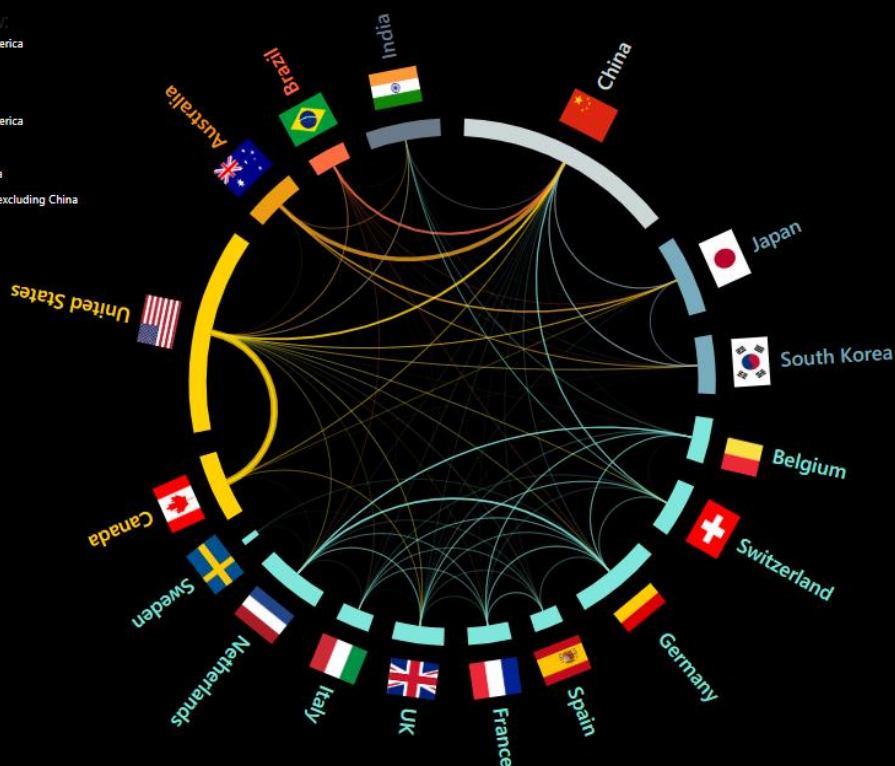
## Create a Chord Diagramm That's all folks!



### 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

Visual documentations

Visuals

Charticulator app

Privacy

LinkedIn

GitHub

About me

Home > Charticulator > Intro

## 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.

### Terminology

- User Interface Components
- Help Menu
- Preparing Data
- Narrow
- Wide
- Data for Links
- Loading Data

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



3

## Charticulator To go further...



Character Co-occurrence in Les Miserables

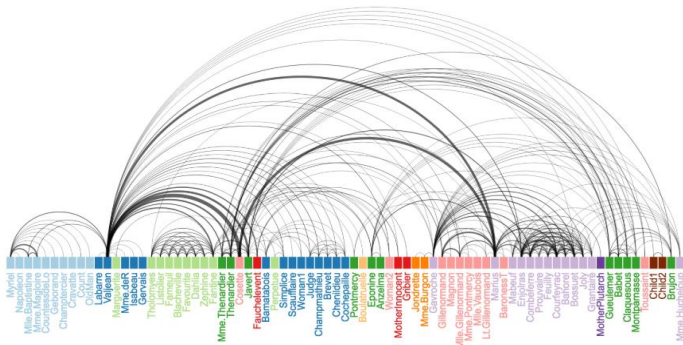
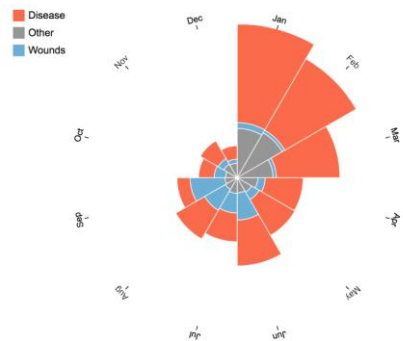
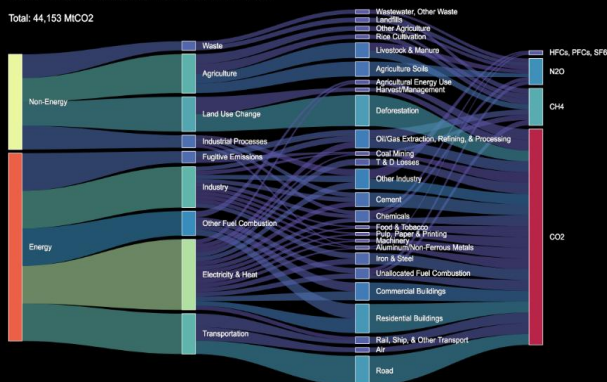


Diagram of the Causes of Mortality in the Army in the East

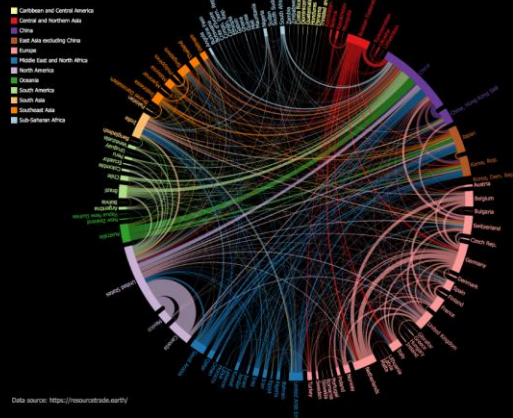


World Greenhouse Gas Emissions in 2005

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"

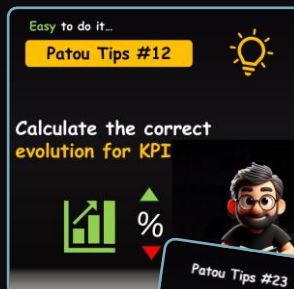
Create a Chord Diagramm

# 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



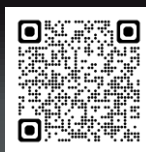
**Patou Tips #6**  
Create  
Customized Icon



**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



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Share me

