

HCC Line Chart: A Custom Chart for RAWGraphs

Group: G1a

Amogh Ratna Manandhar

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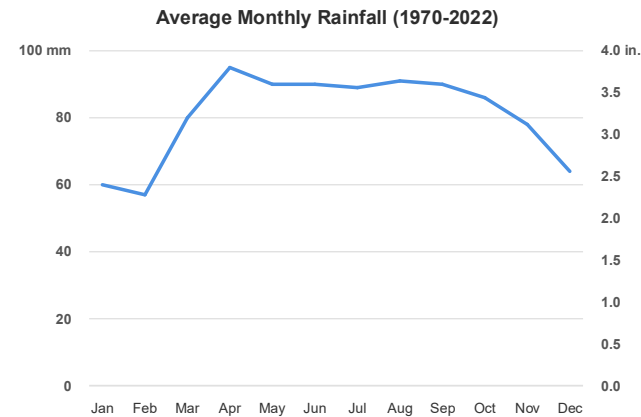
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Chart Best Practice

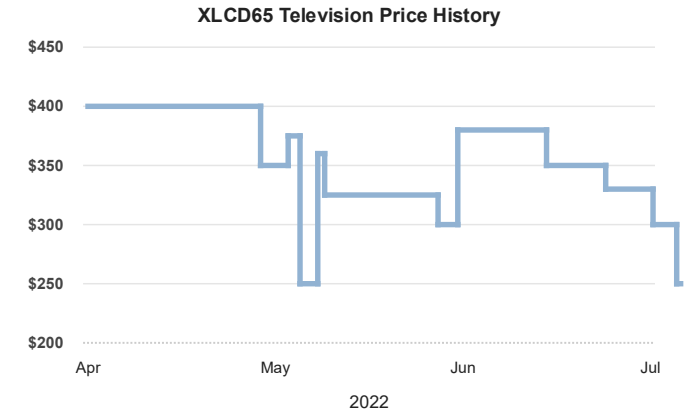
- Nicholas P. Desbarats, Practical Charts: Practical Reporting Inc., 2023, ISBN: 978-1-7388883-0-6, <https://practicalreporting.com/practical-charts-book>
- Explains the process of choosing chart type.
- Best practices to follow.
- Bad practices to avoid.

Varieties of Line Charts

- Standard line chart
- Multi-line chart
- Dual-axis chart
- Step chart
- Index chart
- Bumps chart



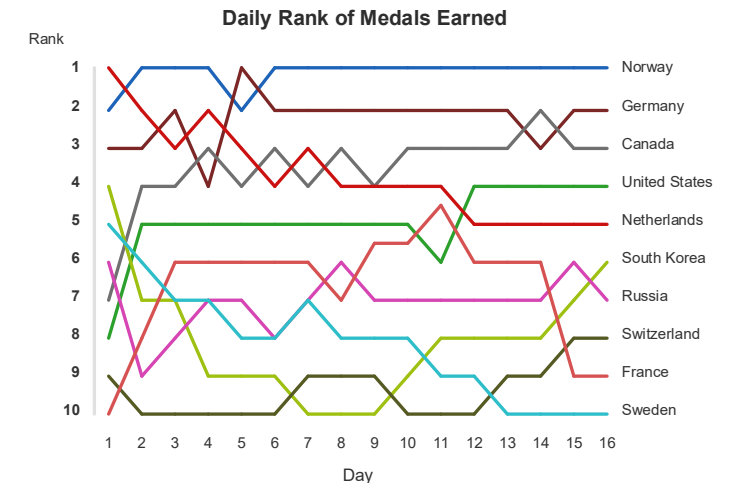
a) Dual-axis chart



b) Step chart



c) Index chart



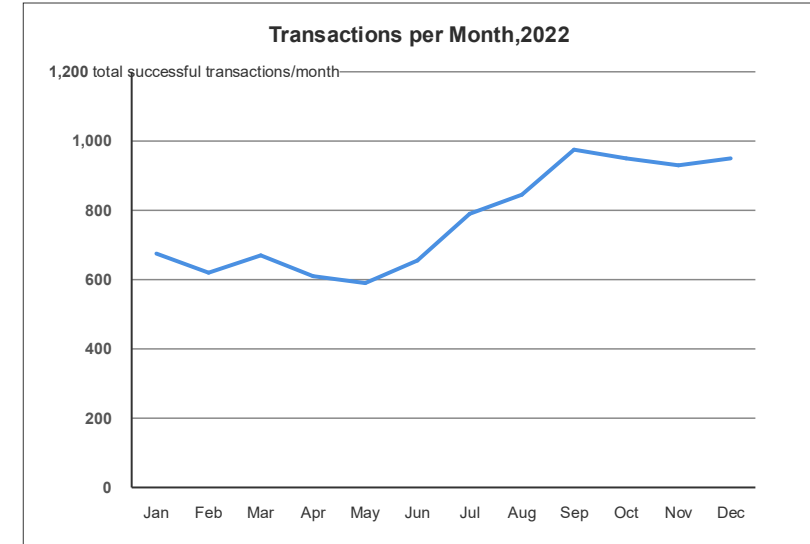
d) Bumps chart

Source: Adapted from Desbarats, Practical Charts (2023) — a(p. 20), b(p.98), c(p. 19), d(p. 93)

Recommended Formatting for a Line Chart

Formatting Non-Data Elements

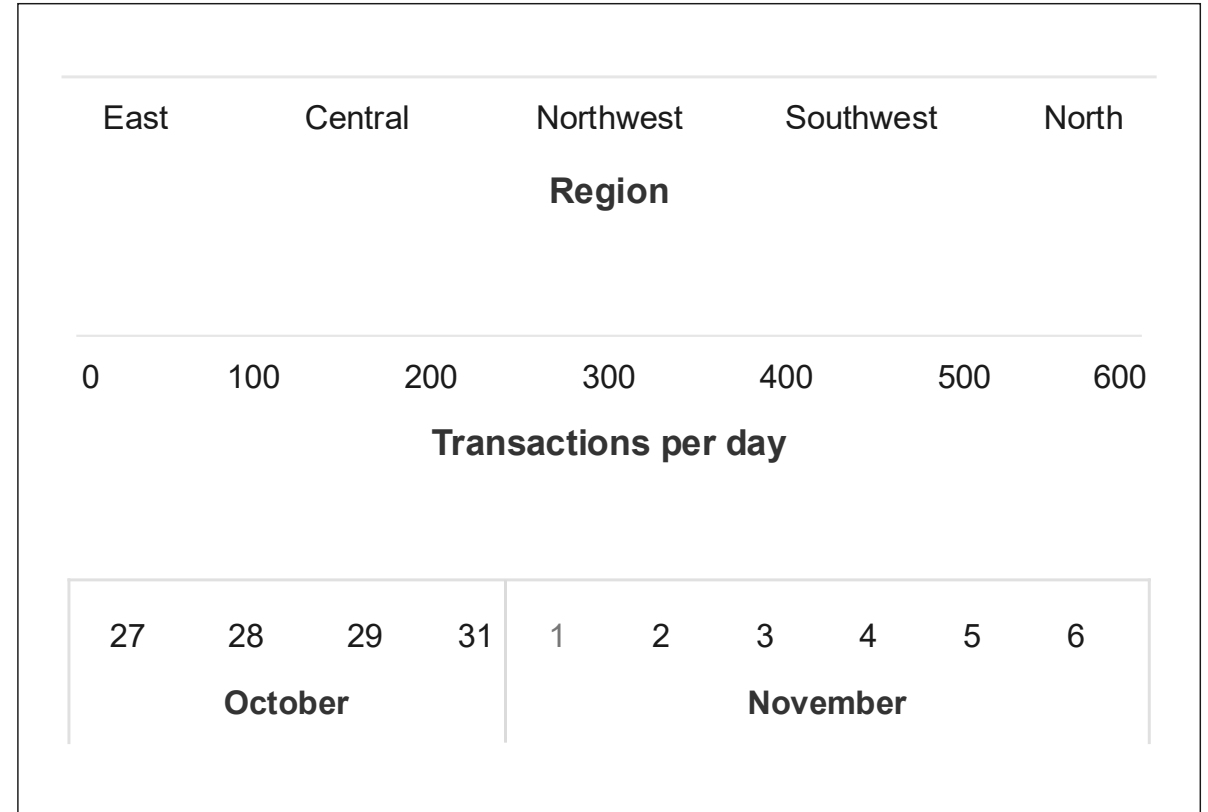
- Borders: not needed.
- Tick marks: not needed.
- Axis lines: not needed.
- Gridlines: useful but should be subtle.
- Horizontal axis titles is easier to read.



Source: Adapted from Desbarats, Practical Charts (2023) — p.108

Axes and Scales

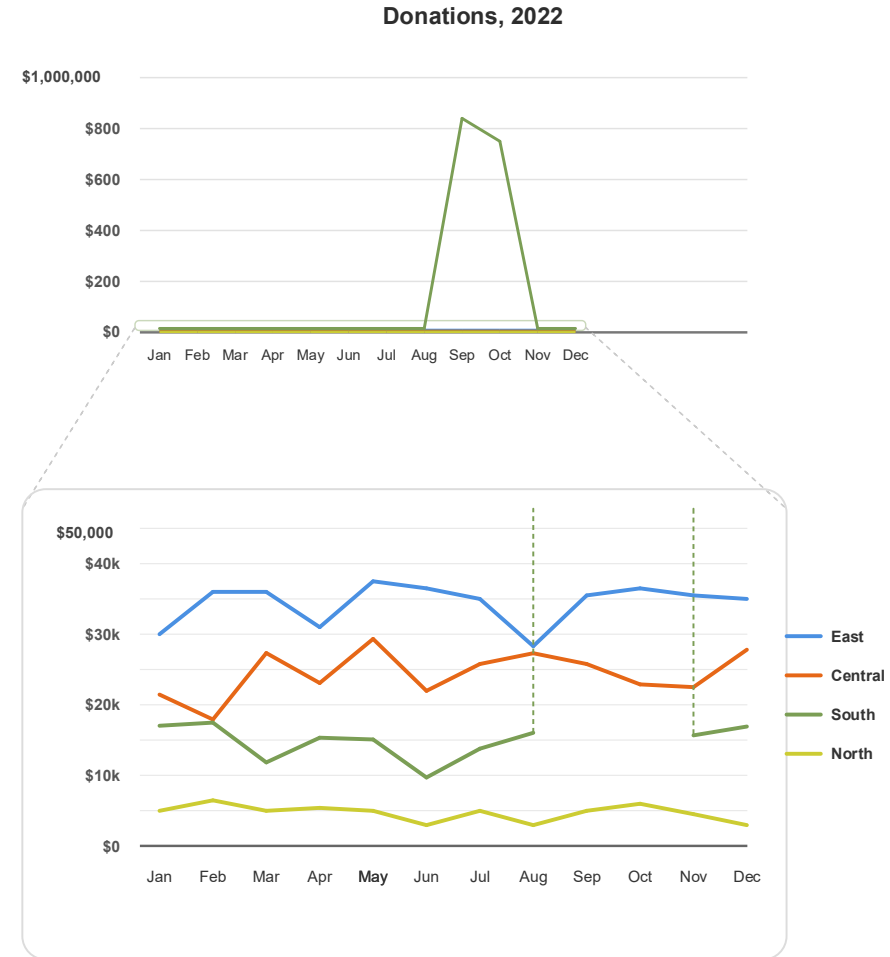
- Categorical, Quantitative, Time scales.
- Sorting.
- 10-20% beyond lower/upper value.
- Truncate the axis value.
- Multi-level time scale.



Source: Adapted from Desbarats, Practical Charts (2023) — p.7

Inset Chart

- Large difference/range squishing some trends.
- Zoomed and highlight using inset chart.

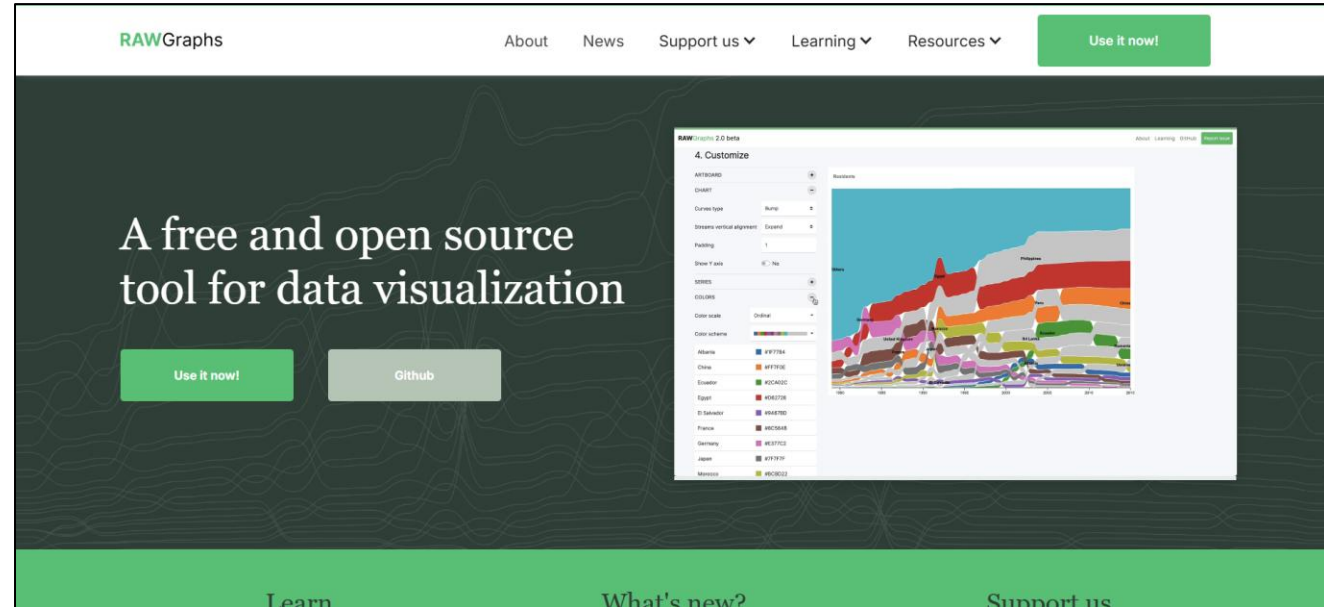


Source : Adapted from Desbarats, Practical Charts (2023) — p.24

RAWGraphs

What is RAWGraphs?

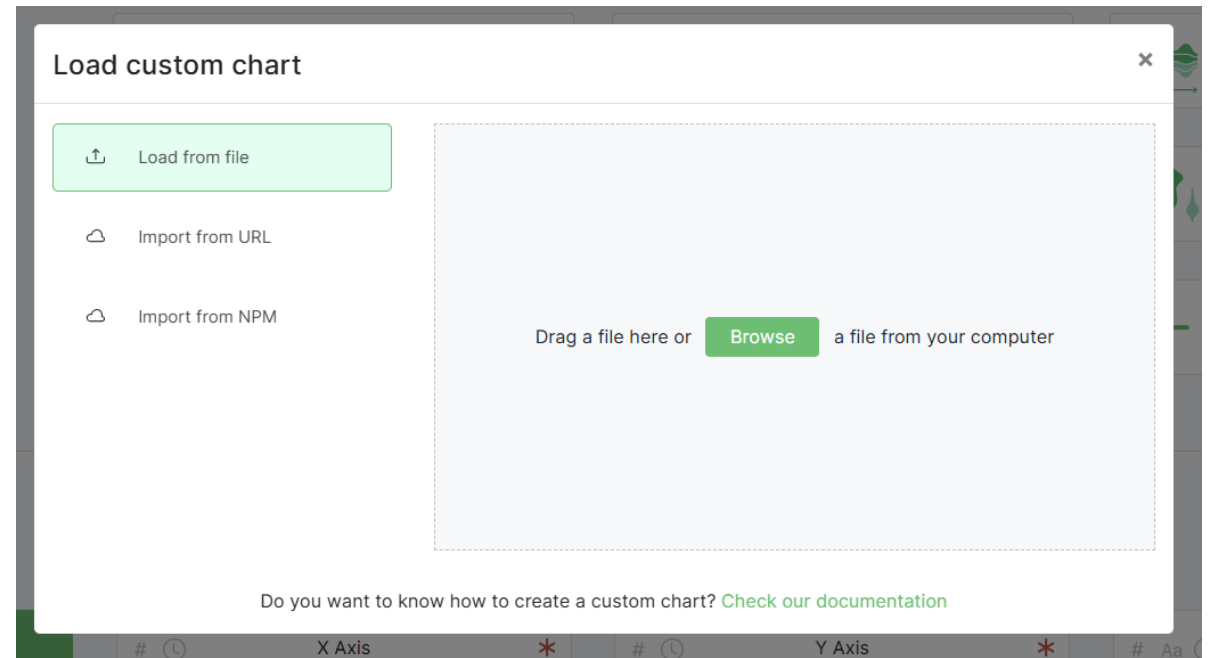
- Free and open source tool.
- Load data.
- Create various charts.
- Customise chart.
- Option to use custom charts.
- Export chart in SVG, PNG, JPG formats.
- Save as .rawgraphs file for future use.
- <https://rawgraphs.io>



Source: Screenshot taken from RAWGraphs website by the author.

Custom Chart

- Pieces of code that can be loaded on the fly by the RAWGraphs app, extending its possibilities.¹



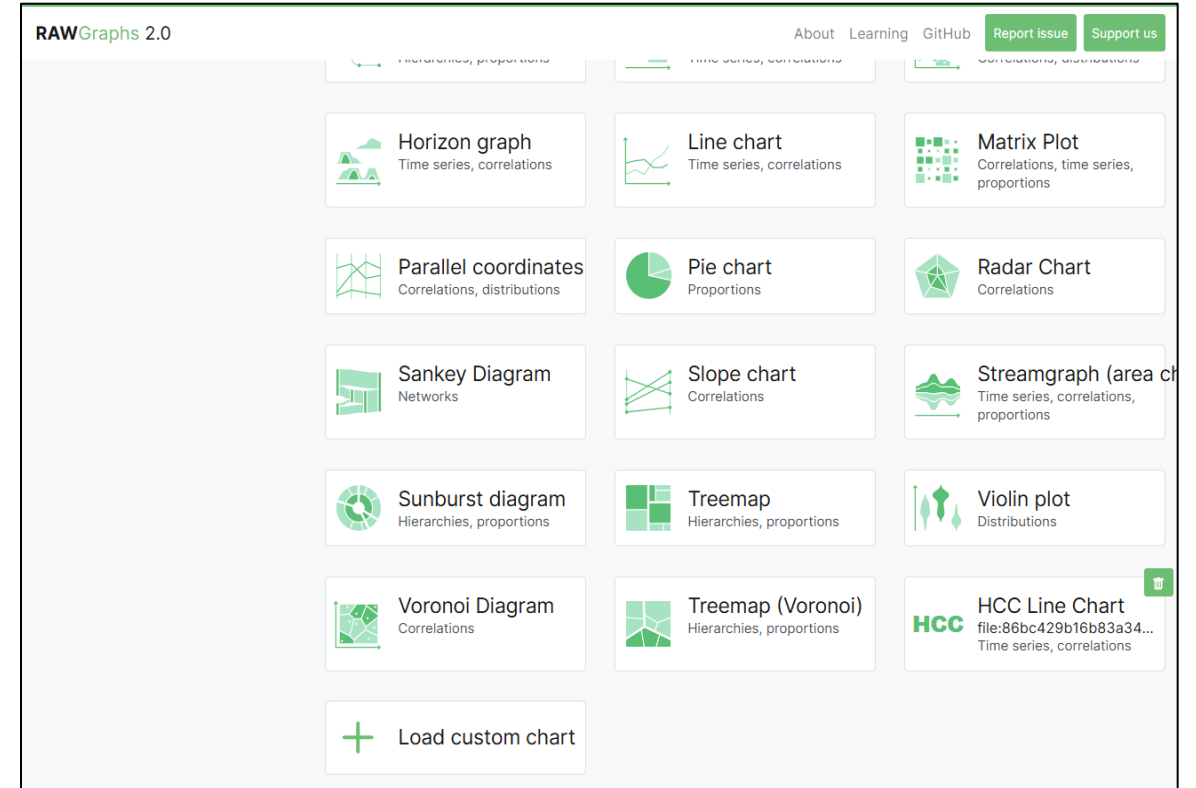
Source: Screenshot from RAWGraphs taken by the author.

1. <https://rawgraphs.io/custom-charts>

HCC Line Chart

HCC Line Chart

- Default style as recommended by Desbarats.
- Many more customisation options.
- <https://github.com/AmoghR/hcc-line-chart>
- Download file `hcc-line-chart.js` from GitHub release or follow readme to run locally/customize.



Source: Screenshot taken from RAWGraphs after loading HCC Line Chart by the author.

ARTBOARD

CHART

Chart Title

Title Position: center

Chart Type: line

Show Marker: Yes

Marker Shape: circle

Marker Size: 2

Line Width: 2

Line Style: solid

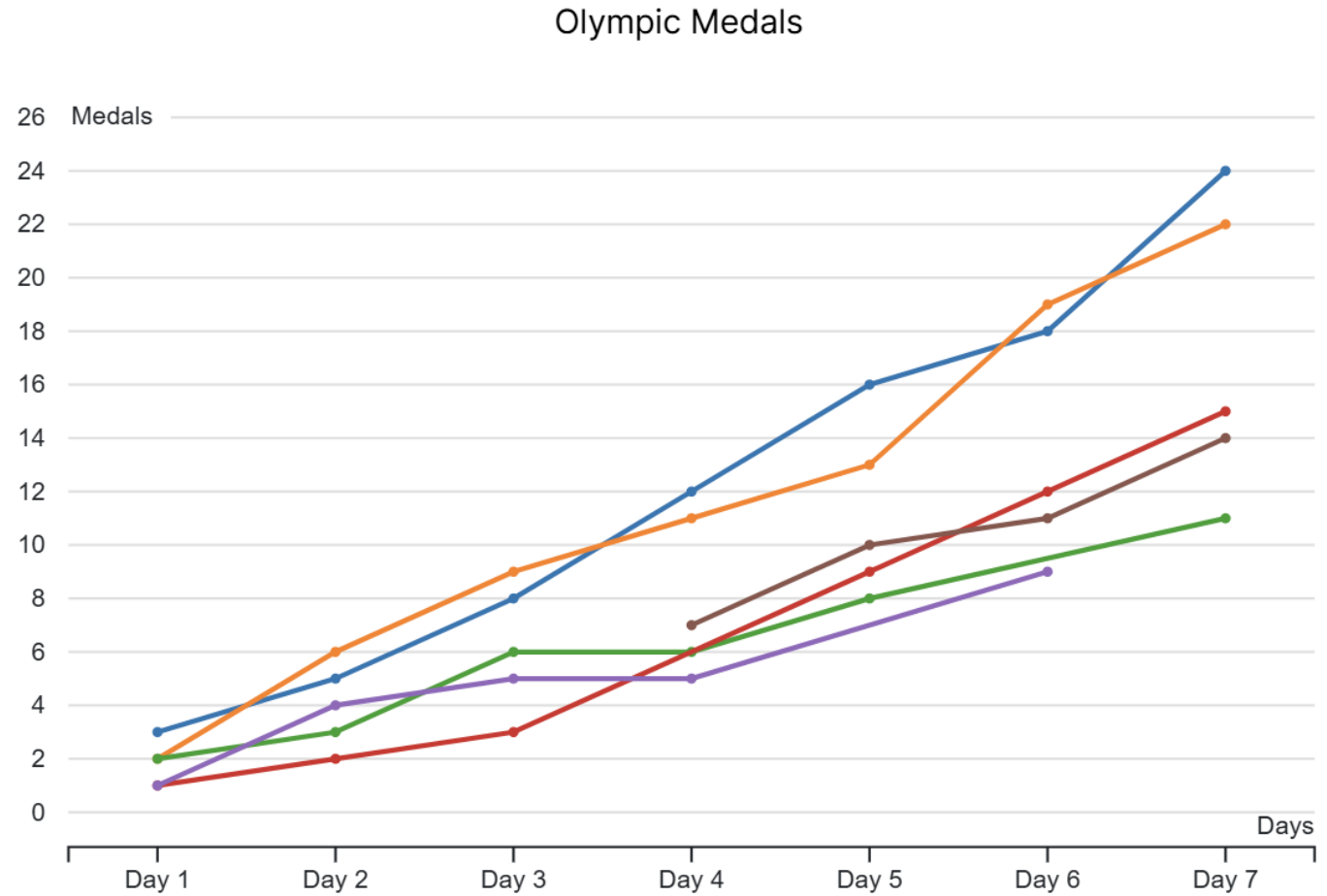
ARTISTIC

AXES

Show X-Axis: Yes

Show X-Axis Line: Yes

X-Axis Title



Source: Screenshot of chart customization with HCC Line Chart in RAWGraphs

Live Demo

Showcase Video

https://youtu.be/ZHehjxzH_i8

Artboard

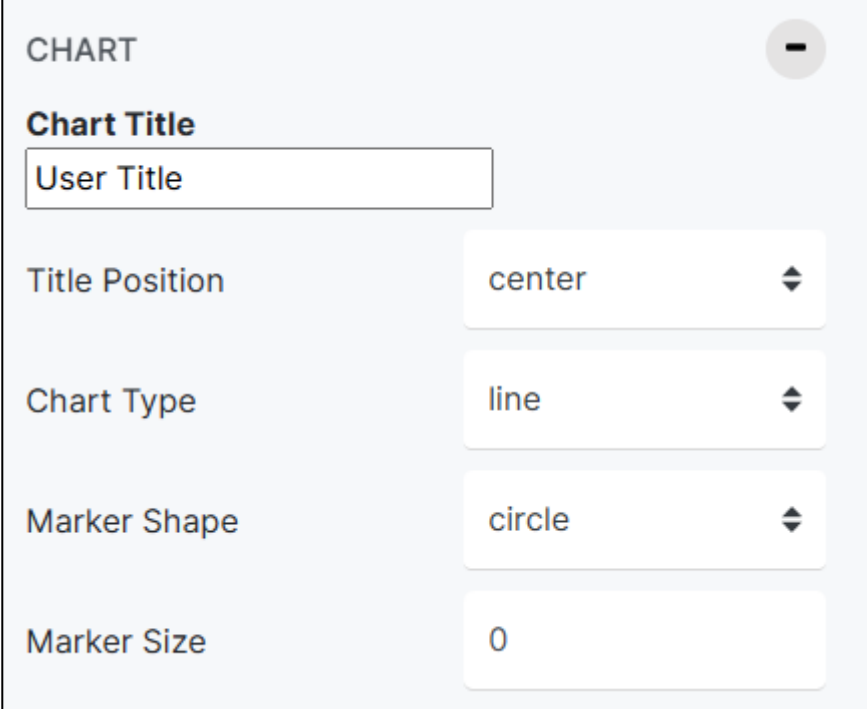
- Size and background colour of the chart.
- Width and height.
- Margin all sides.
- Padding all sides.

ARTBOARD	
Width	600
Height	400
Background	<input type="checkbox"/> #FCFCFC
Margin Top	60
Margin Bottom	50
Margin Left	60
Margin Right	50
Padding Top	0
Padding Bottom	0
Padding Left	0
Padding Right	0

Source: Screenshot of sidebar taken from RAWGraphs after loading HCC Line Chart by the author.

Chart

- Title text.
- Title position:
 - center, left or right
- Chart types:
 - normal, multiline, step, bumps
- Data marker shapes:
 - circle, square, triangle, diamond
- Line width
- Line style:
 - solid, dashed, dotted



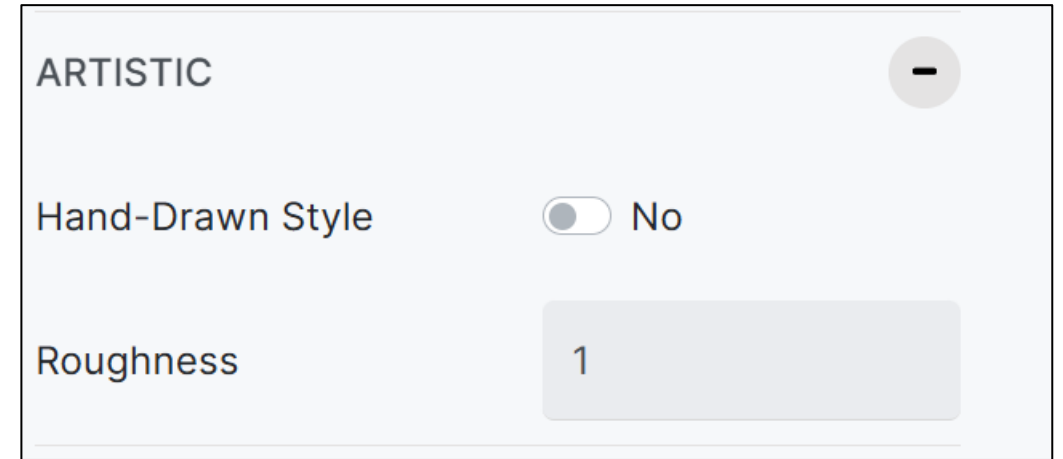
The image shows a sidebar configuration panel titled "CHART" with a close button in the top right corner. The panel contains the following settings:

- Chart Title:** A text input field containing "User Title".
- Title Position:** A dropdown menu set to "center".
- Chart Type:** A dropdown menu set to "line".
- Marker Shape:** A dropdown menu set to "circle".
- Marker Size:** A text input field containing "0".

Source: Screenshot of sidebar taken from RAWGraphs after loading HCC Line Chart by the author.

Artistic

- Apply hand-drawn look.
- Roughness level.



Source: Screenshot of sidebar taken from RAWGraphs after loading HCC Line Chart by the author.

Axes

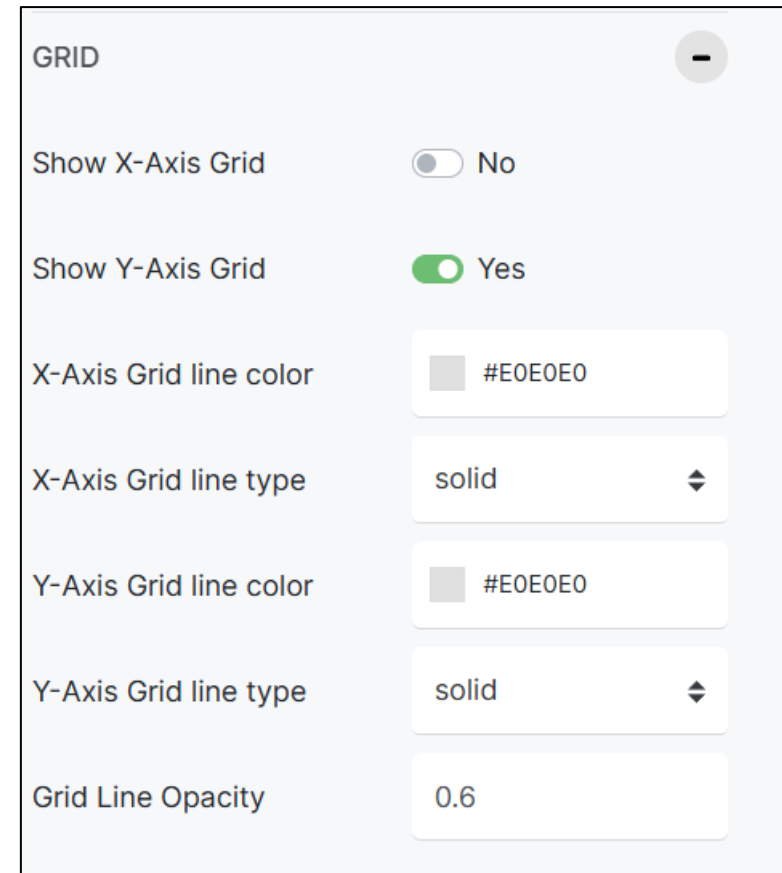
- Customize axes independently.
- Show/hide axes titles, line, ticks and labels.
- Change the start, step and end value of Y-axis.

AXES	
Show X-Axis	<input checked="" type="checkbox"/> Yes
Show X-Axis Line	<input checked="" type="checkbox"/> Yes
Show X-Axis Ticks	<input checked="" type="checkbox"/> Yes
Show X-Axis Labels	<input checked="" type="checkbox"/> Yes
Show Y-Axis	<input checked="" type="checkbox"/> Yes
Show Y-Axis Line	<input type="checkbox"/> No
Show Y-Axis Ticks	<input type="checkbox"/> No
Show Y-Axis Labels	<input checked="" type="checkbox"/> Yes
Y-Axis Start	<input type="text"/>
Y-Axis End	<input type="text"/>
Y-Axis Step	<input type="text"/>

Source: Screenshot of sidebar taken from RAWGraphs after loading HCC Line Chart by the author.

Grid

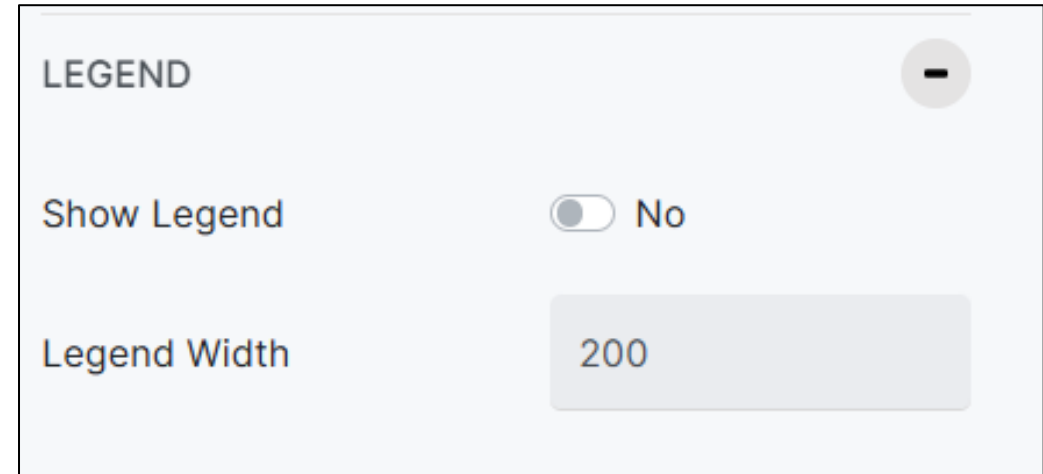
- Customize grid independently.
- Show/hide grid lines.
- Grid line style.
- Grid line colour.
- Grid line width.



Source: Screenshot of sidebar taken from RAWGraphs after loading HCC Line Chart by the author.

Legend

- Show or hide legend.
- Change width.



Source: Screenshot of sidebar taken from RAWGraphs after loading HCC Line Chart by the author.

Thank You