LightningChart®

LightningChart® JavaScript

Next Generation World's Fastest Charts

Arction

www.lightningchart.com

THE HIGHEST PERFORMANCE CHARTING CONTROLS FOR JAVASCRIPT

LightningChart® for JavaScript is the ultimate and highest-performing WebGL-based, cross-platform charting library that has been developed to deliver the highest performance to fulfill the most demanding industries and data-intensive applications.

The advanced data visualization controls components of LightningChart® are suitable for the most demanding purposes such as engineering, healthcare engineering & medical devices, industrial process control, and scientific use.

In June 2021, LightningChart® for JavaScript reached the outstanding performance of up to **10M+ of data points rendered in real-time.**

What Is the Secret of LightningChart® JavaScript?

The secret behind the unbeatable performance of LightningChart for JavaScript relies on a completely GPU-accelerated and WebGL rendering processes. For the end-user this translates into the graphic processors being efficiently used resulting in high refresh rates and smooth animations.

TOP USER EXPERIENCE

Dashboard

Makes it easy and convenient to manage dozens of charts, legend boxes, buttons, check boxes and other UI elements.
Resource-efficient rendering of all charts in one GPU scene also makes resizing columns and rows very fast.

Interactivity

Exceptionally powerful rendering ensures smooth animations exceeding all industry standards in amount of data per chart.
Intuitive touch screen interactivity with zooming, panning, moving data cursors and so on.

WebGL-Rendering

GPU acceleration and WebGL rendering ensure that your device's graphics processor is utilized efficiently, which results in high refresh rates and an outstanding execution performance.

Server-Side Rendering

LightningChart® supports server-side rendering to produce high-quality chart images in server data-driven applications.

Online Resources

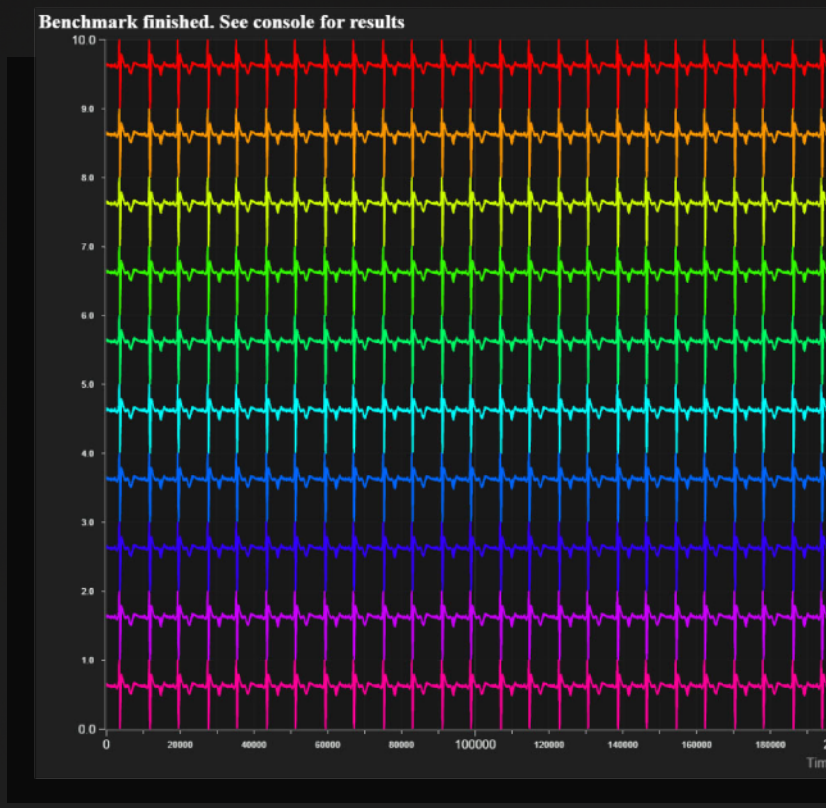
there is a wide variety of rich resources that introduce and assist users to begin experiencing LightningChart®.

LightningChart® JS

WHY LIGHTNINGCHART® JAVASCRIPT?

The performance of LightningChart® Charting Controls is unbeatable. Period. But for those who need real technical details here is the fact:

In June 2021, we tested out charts providers. The goal of the experiment was to create a scrolling line chart to demonstrate the line charts' real-time performance, FPS (Frames Per Second), Timeout Delay, and Heap Size (in MB).



RESULTS

After the test, it was concluded that LightningChart® JS is the fastest JavaScript line chart:

- With a low-end laptop, LightningChart® JS is about **80 x faster** than average of competitors.
- With high-end desktop, LightningChart® JS is roughly **700 x faster than average of competitors**, and **100 x faster than nearest competitor.**
- With high-end desktop, LightningChart® JS can keep FPS over 30, with data rates of over **10 million new data points / sec.**

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See the Performance Comparison

SOME OF THE CHARTING CONTROLS AVAILABLE AT LIGHTNINGCHART® JAVASCRIPT

XY Charts

- **Series types:** Line and point series, area series, area range series, OHLC series, rectangles, ellipses, box-whisker and line segment series.
- Linear axes can be placed left/right/top/bottom and possibility to have several X and Y axes per chart.
- Scaling modes include fitting, Expansion, Progressive/ Regressive and Manual.
- Markers and data cursors have customizable shape and styles.
- **Logarithmic Axes:**
  - Can be used with Numeric TickStrategies as well as DateTime TickStrategies.
  - Base number can be set per Axis by users.
  - Available with XY charts, supported series types: Line, Point, PointLine, Step, Spline, Area, AreaRange, Rectangle, Segment and OHLC.

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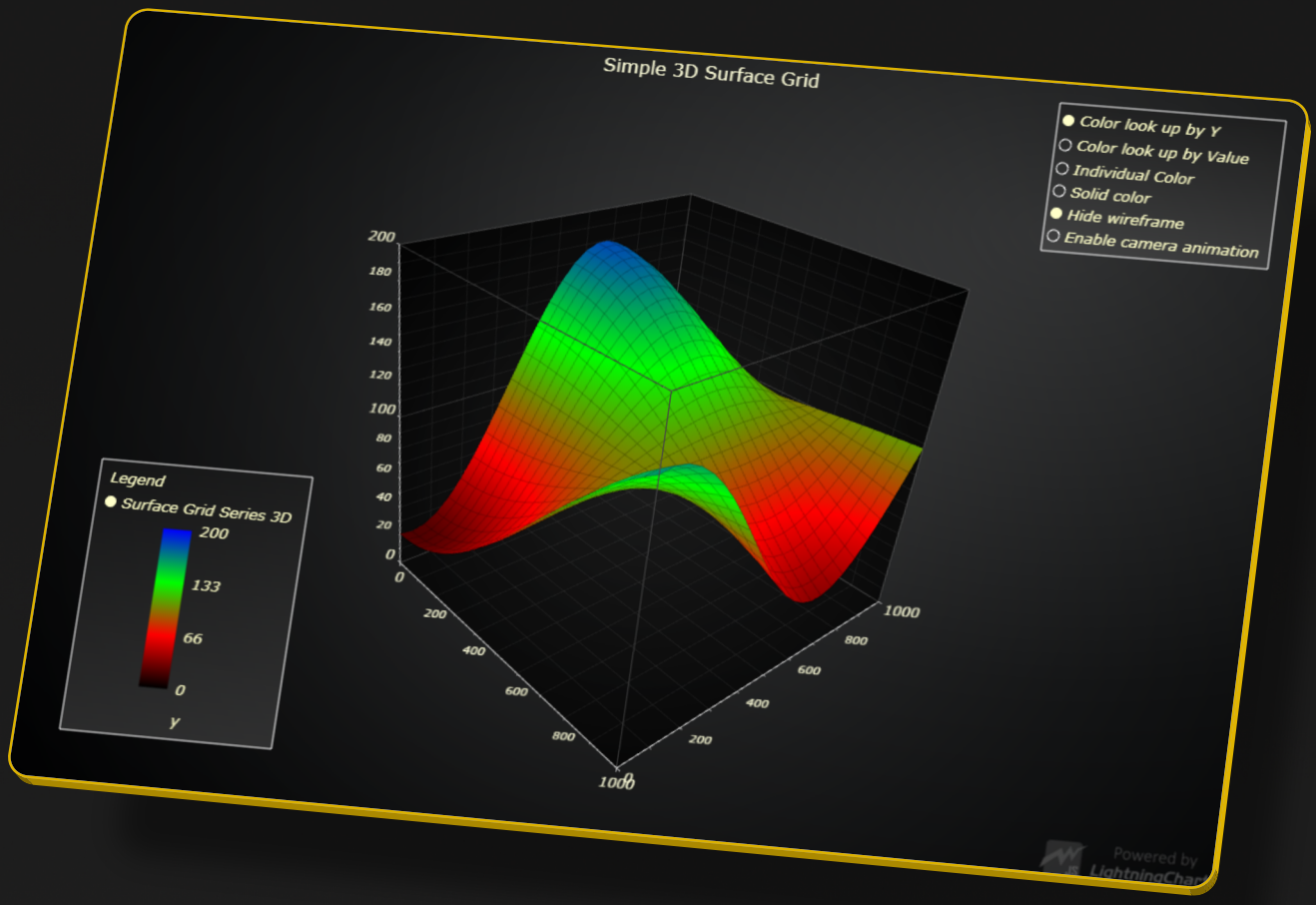

Advanced 3D Charts

- **Series types:** Line series, Point series, PointLine series, PointCloud series, Box series, Surface series.
- Customize the shape of the Bounding Box of the 3D Chart.
- Linear Axes for X, Y and Z planes around Bounding Box of the 3D Chart.
- Use Numeric and DateTime format with Axis ticks.
- Camera can be controlled to rotate around and zoom in / out of the Chart area.

- **3D box series:**
  - Customizable with value based coloring, solid coloring for all boxes, individual box colors, and the roundness of the Box Shape edges.
  - Supports dynamic coloring by x, y or z coordinates.
- **3D surface series:**
  - Customizable with: value based coloring, solid coloring, Data-Point based coloring.
  - Comes with customizable wireframe.

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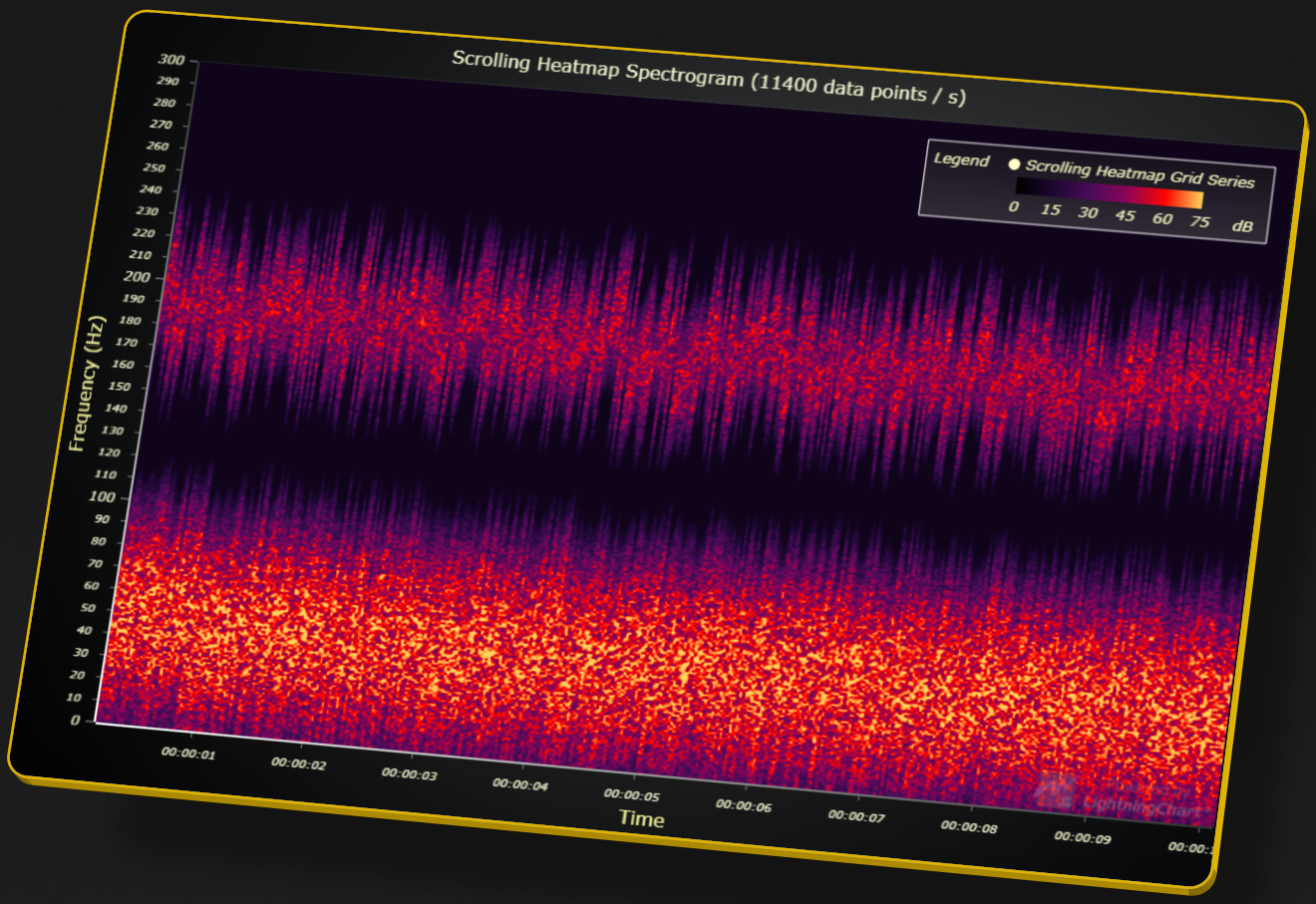

Heatmaps

- Usable in XY Charts.
- Possibility to create a 2D rectangular heatmap using the **IntensityGrid** option.
- Possibility to create a 2D mesh heatmap using the **IntesityMesh** option.
- Use heatmaps to create Spectrograms.

Learn More About All LightningChart® Chart Types

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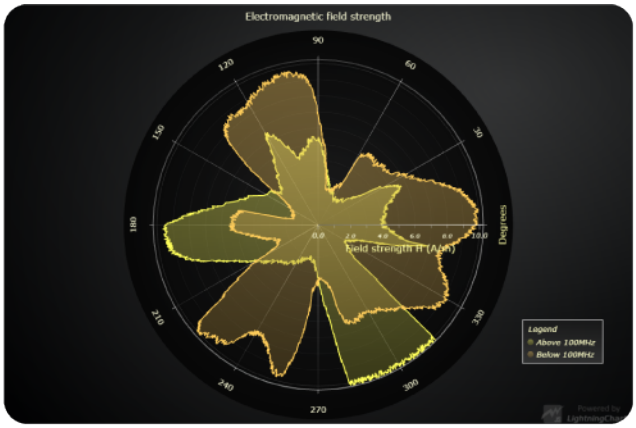

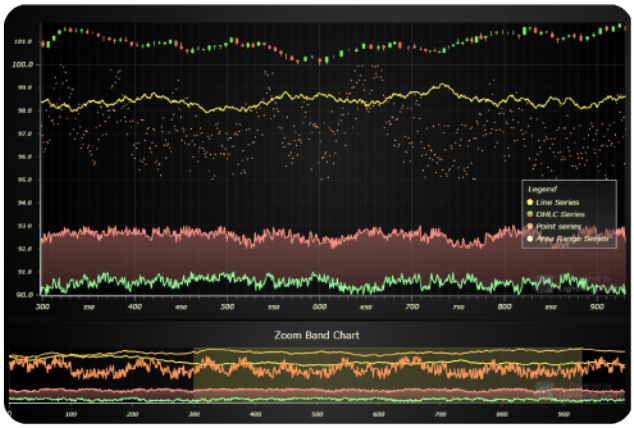

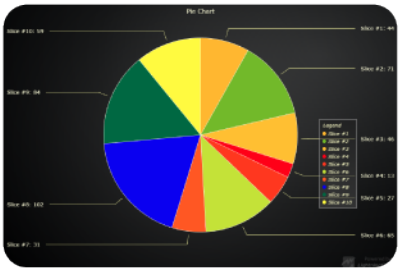

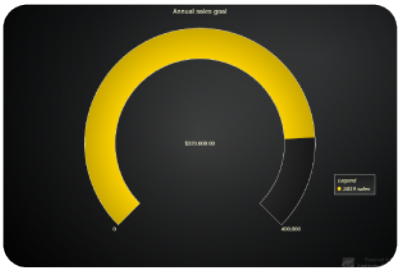

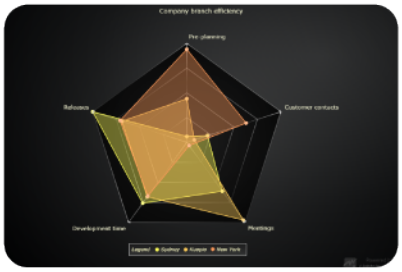

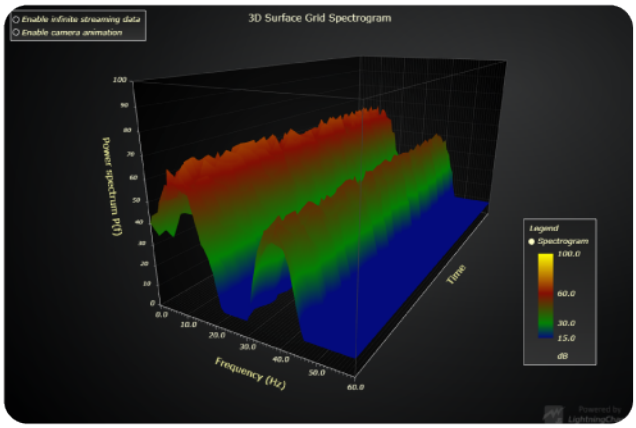

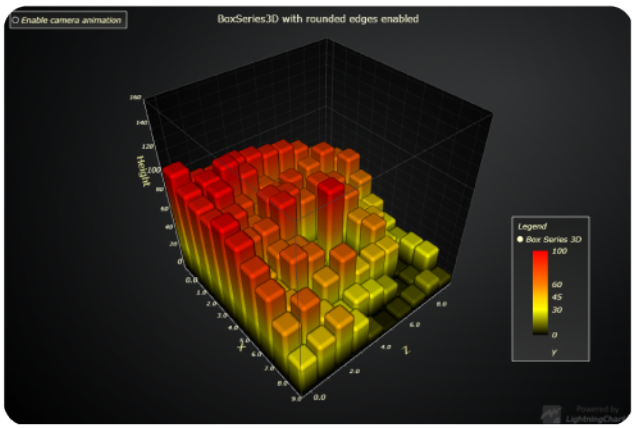

See All Interactive Examples

Arction Ltd: the creators of LightningChart®

LightningChart® is registered trademark by Arction Ltd, a pioneer in high-performance charting. Ever since 2009 the LightningChart® team has studied different technologies. Prototyped, researched, and innovated new algorithms, which are now part of LightningChart® product lines, to produce the absolute best performance for those advanced applications that really need it. LightningChart® JS product line was first released in 2019.

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