

# CHANGE LOG.

This is the fourth major release of the v10 LightningChart® .NET line. This release focuses heavily on improving the performance of existing LineSeries, adding new color themes to the interactive examples, and enhancing StockSeries and TradingChart.

## New & Faster Line Series

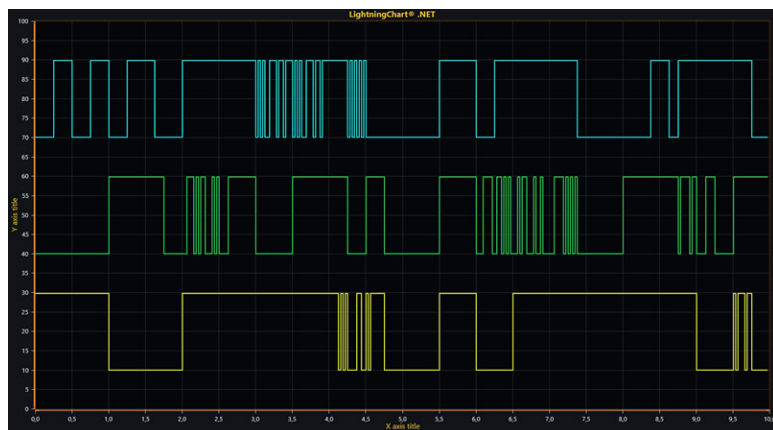
**SampleDataBlockSeries** remains the fastest series to display float/double type of data. However, it requires fixed interval progressive x-value data. This release introduces faster versions of many existing line series, for which this requirement is less strict or not applicable.

These series use less resources (CPU and RAM) compared to the existing series (which allow to visualize order of magnitude more points in the same PC). The new series also offer significantly better performance (as measured by FPS and smoother sweeping and scrolling). The trade-off for the performance boost is less features or configuration options available in the new series.

o **LiteLineSeries** is a lighter & faster version of the PointLineSeries (for progressive x-values, but not fixed interval).

o **LiteFreeformLineSeries** is a lighter & faster version of the FreeformPointLineSeries (no restriction for the arrangement of x/y values).

o **DigitalLineSeries** is a new type of line series, which displays a line alternating between two Y-values. It is fully optimized for performance and uses the least amount of memory of all series types.



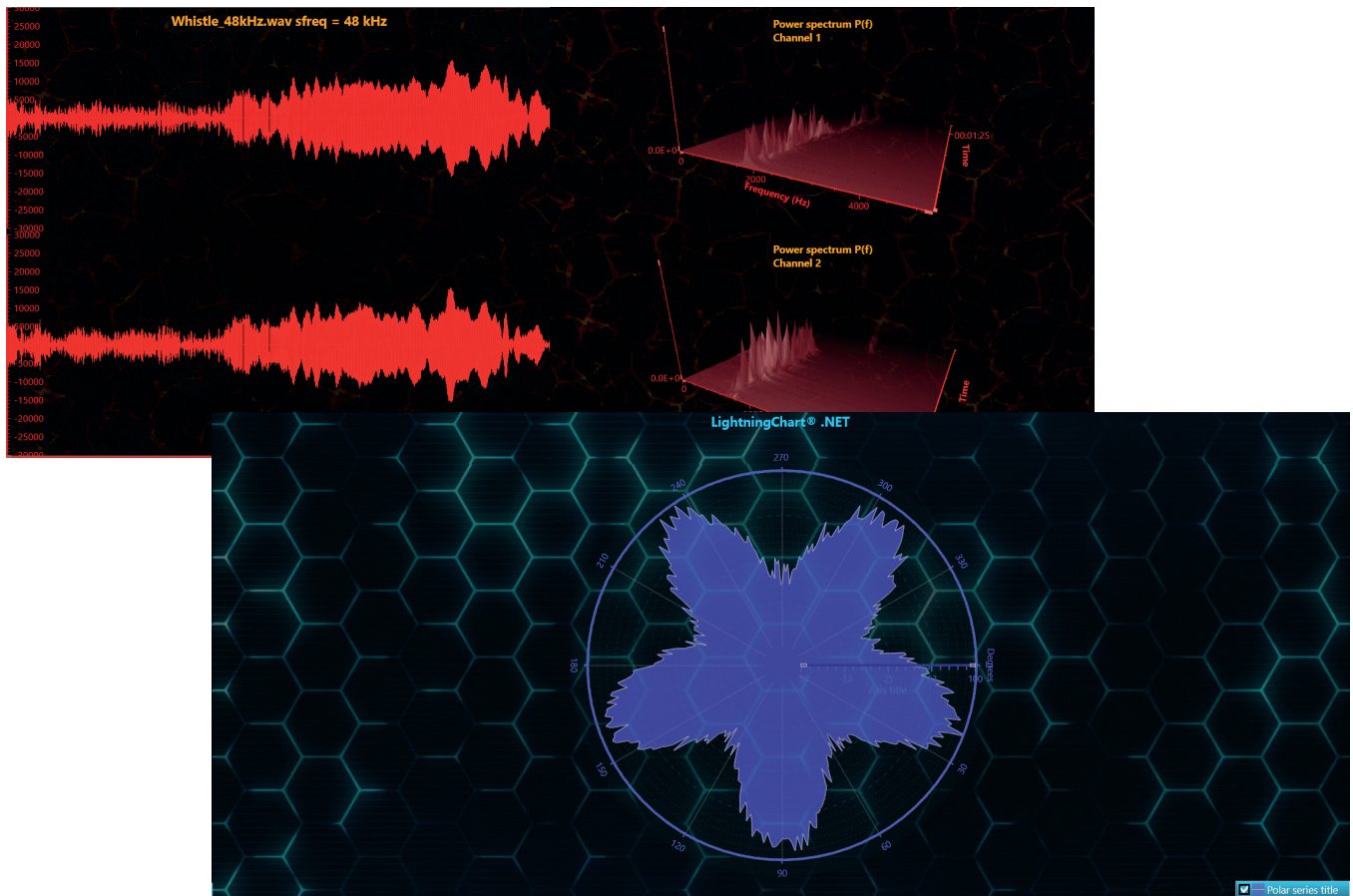
## New Color Themes

LightningChart's pre-defined color themes have received an overhaul.

o We've introduced several new themes including Auroras, Brushed Metal, Light Blue, Magma, Paper, and Red Carbon.

o It is now possible to create custom color themes by updating **CustomDynamicTheme** property.

o We've added a new fill style for backgrounds and rectangles: **ColorOverBitmap**. This allows drawing gradient color on top of a bitmap image.



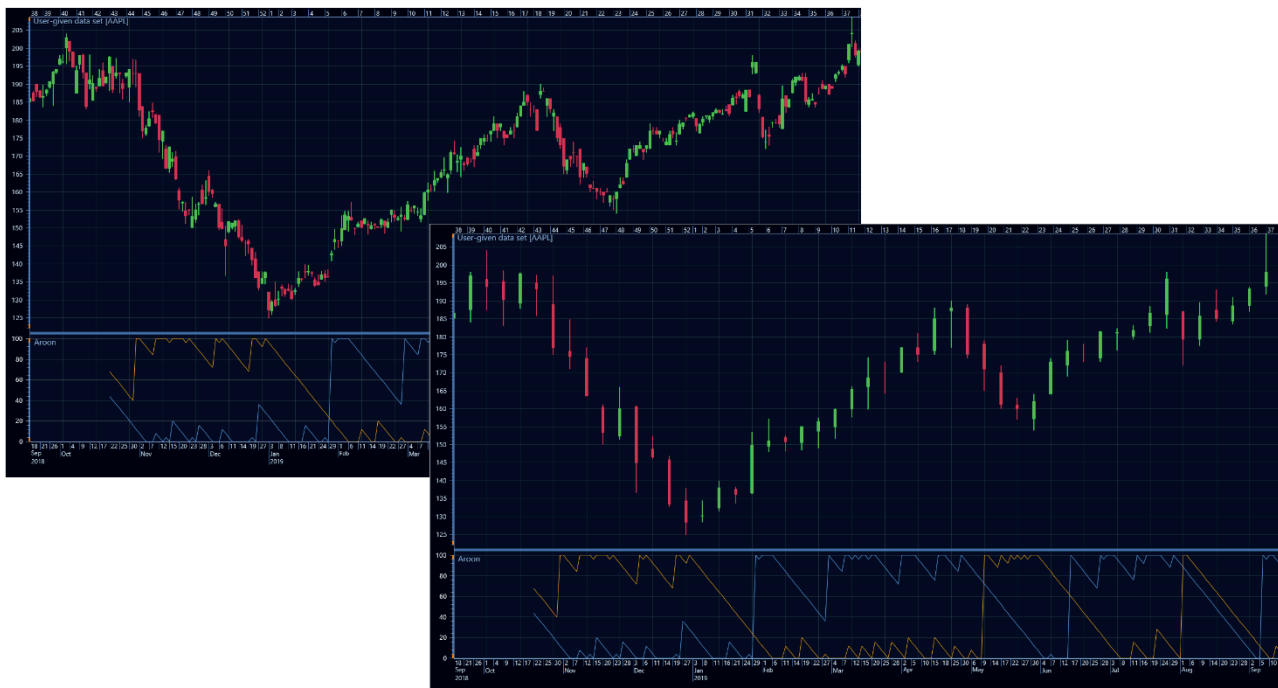
## StockSeries & TradingChart Changes

StockSeries has some improvements.

- o We've added the **Packing** feature. When enabled, the data values close to each other will be rendered as a single item.
- o We've improved the overall performance of StockSeries (up to 15x faster rendering, up to 15x less memory usage when scrolling, sweeping, zooming or panning).
- o The **DeletePointsBeforeX()** method now works correctly.

TradingChart component also has some new improvements.

- o We've added the **DataPacking** feature, which works similarly to StockSeries's **Packing**. It renders data values close to each other as a single item.
- o We've added a couple of new technical indicators: Aron, Rate of Change, Triple Exponential Average (TRIX) and Williams Percent Range.



## Minor Changes

MeshModel now have ShadeMode property to control whether lighting affects their colors or not.

### **HighLowSeries improvements:**

- o Added DeletePointsBeforeX() method to HighLowSeries.
- o Removed unnecessary Point- and LineStyle properties.

### **Annotation fixes:**

- o Fixed some cases where Annotation was disappearing near the edge of the chart.
- o Annotations are now correctly rendered when the FillStyle property is set to None.

### **Fixed some exceptions with Map BackGrounds**

**ScaleBreaks now work correctly with the IntensityGrid- and IntensityMeshSeries using StencilAreas.**

