Release guide

LuciadCPillar 2024.1

14 January 2025

Contents

About this release

LuciadCPillar 2024.1 adds heat maps and cubic Bézier curve support. In addition, users can now configure custom fonts.

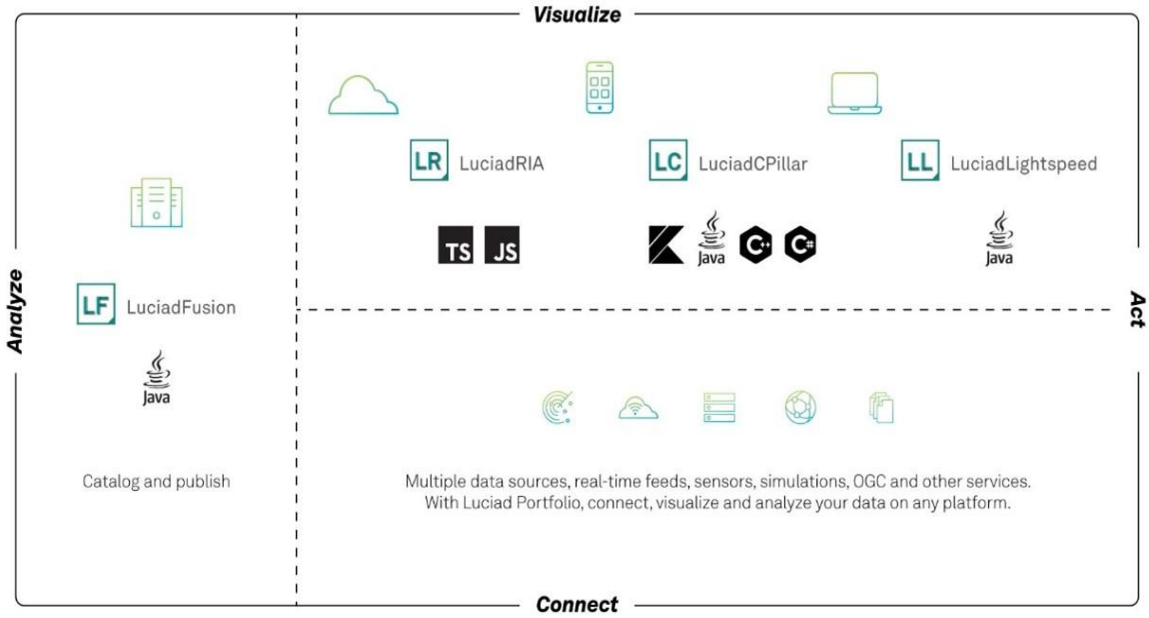

Figure 1 The Luciad portfolio

Benefits of new features

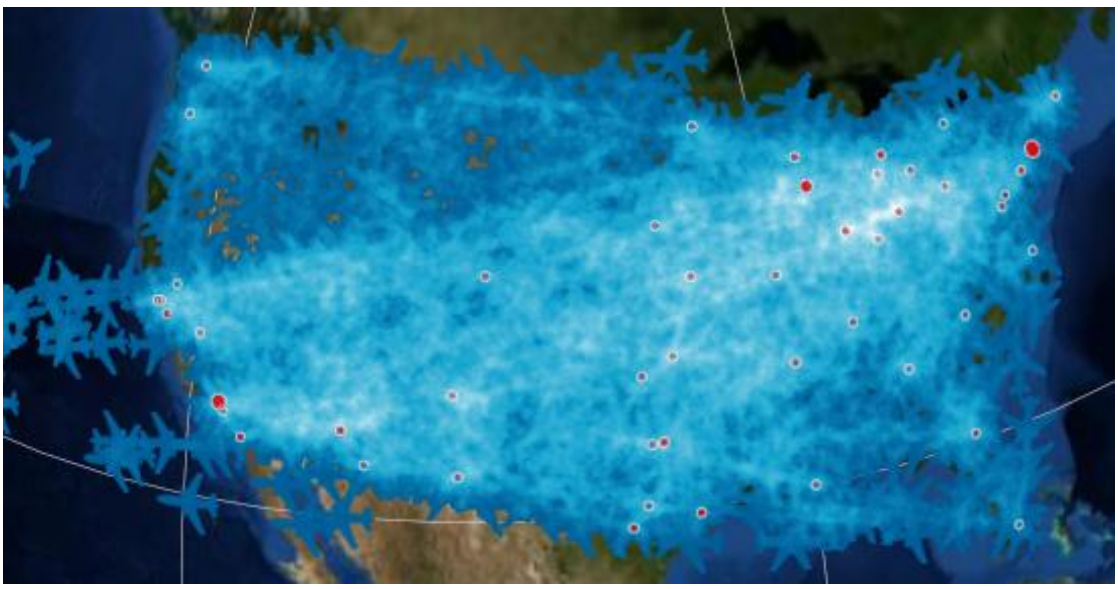

Figure 2 An illustration of a heat map shows the density of air traffic.

Density painting

LuciadCPillar now supports hardware-accelerated density maps, often called heat maps. A density map counts overlapping features on each pixel and colors the pixels according to the amount of overlap. This is illustrated in **Error! Reference source not found.**. It is a handy tool for spotting patterns and trends in data.

Apply density on all feature layers

You can use heat maps for any data:

- Icons, lines and areas
- Dynamic and static

Define visualization with a color map

When you activate density painting, the regular color of features is no longer relevant. The weight of each feature, taken from its alpha color value, contributes to the amount of overlap. You define a *ColorMap* that maps the number of overlapping features to colors.

Sample code/documentation to get you started

The article "Density painting" was added to documentation. The LuciadCPillar distribution now also offers a new Tracks sample illustrating the density painting.

Other improvements

Cubic Bézier curve support

The curve type *BezierCurve* has been modified to support cubic Bézier interpolation. Figure 3 shows some examples of Bézier curves.

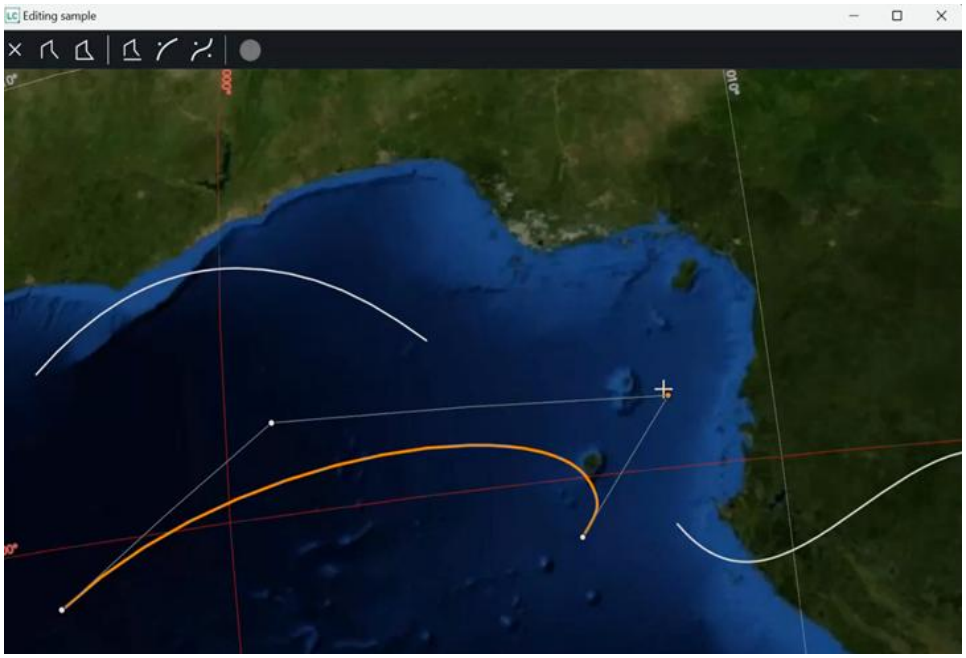

Figure 3 The creation of curves in the Editing sample in LuciadCPillar

Layer loading status
LuciadCPillar now offers an API to find out when processing and painting of a layer are complete. The use of this feature is illustrated in Layer Control in samples; see also Figure 4. A busy spinner is shown when a layer is loading and painting data. The spinner is hidden when the layer is finished.

Figure 4 In this image, the Marseille LiDAR and mesh layers are still loading data, which is indicated by the busy spinner in the layer list.

Custom font support
LuciadCPillar offers a range of fonts that can be used out of the box. Nevertheless, your application's graphical user interface may be designed to use custom fonts, specific to your company or your customer. You can now register these with LuciadCPillar. The new article "Using custom fonts" offers guidance.

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