



HEXAGON

Release Guide
2020.1

Release Guide

LuciadLightspeed 2020.1

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About This Release

The 2020.1 release of LuciadLightspeed brings several highly requested improvements. These include additional format support, format upgrades, and improved image sampling.

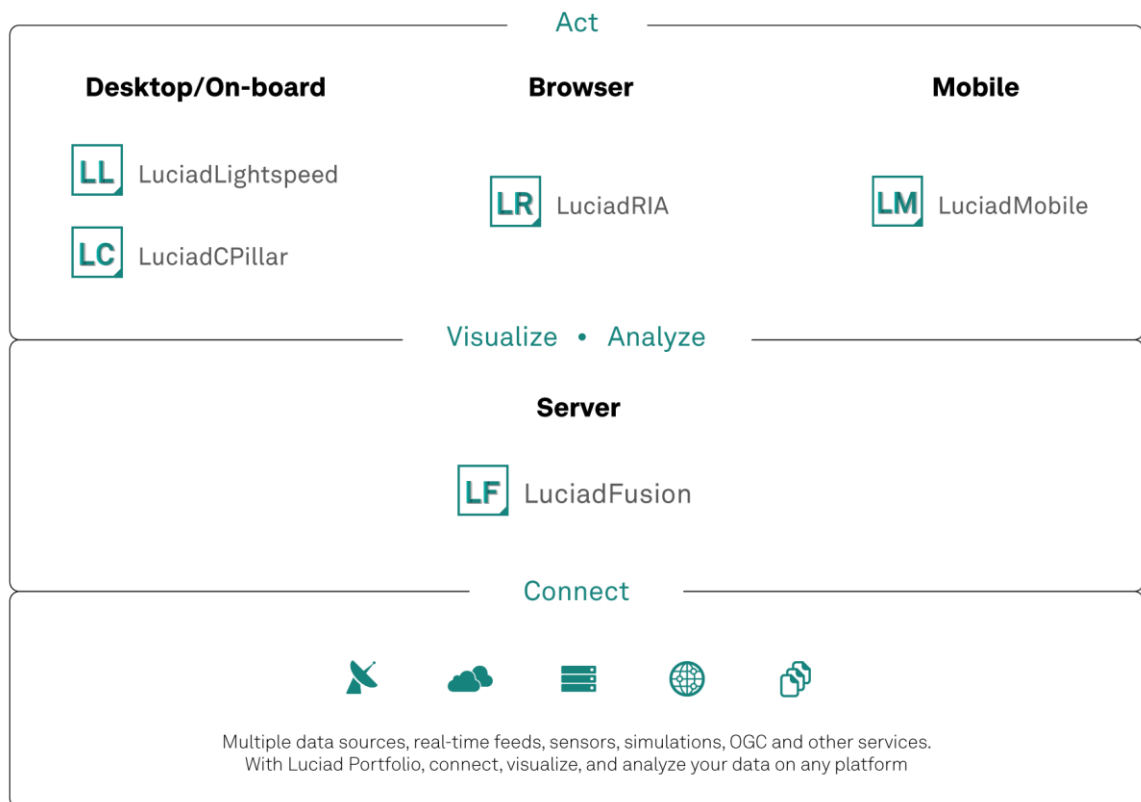


Figure 1: The Luciad Product Portfolio.

Benefits of the New Features

OGC GeoPackage Format Support Upgrade

Data in OGC GeoPackage format is supported for many versions already. LuciadLightspeed 2020.1 upgrades this support with the following capabilities:

- Support for GeoPackage version 1.2 and 1.3. This means that LuciadLightspeed now offers both read and write support for versions 1.0, 1.1, 1.2 and 1.3 of the OGC GeoPackage standard.
Note that the OGC GeoPackage 1.3 specification is not yet final and may still change. The LuciadLightspeed support is based on the Release Candidate of the specification and will be updated after the standard is final.
- Auto detection of the version of GeoPackage files that need to be decoded.
- Support for the OGC GeoPackage Extension for Tiled Gridded Coverage Data. This release of LuciadLightspeed brings support for elevation data encoded according to this GeoPackage extension.

Support for MBTiles Raster Data

MBTiles is a specification for storing geospatial data in a tiled way in SQLite databases. The format supports a limited set of geo-references and is popular for sharing data because it is quite portable, like OGC GeoPackage with more rich data encoding possibilities.

LuciadLightspeed 2020.1 supports MBTiles datasets containing raster data.



Figure 2: The 2020.1 release supports raster MBTiles datasets.

Bicubic Sampling for Imagery

When displaying imagery data on a map view and zooming in to the most detailed level and beyond, image resampling ensures smooth display. LuciadLightspeed has supported nearest-neighbor sampling and linear interpolation for many releases. LuciadLightspeed 2020.1 brings support for cubic sampling, which results in a smoother display than the existing sampling options, avoiding “pixelating” effects.

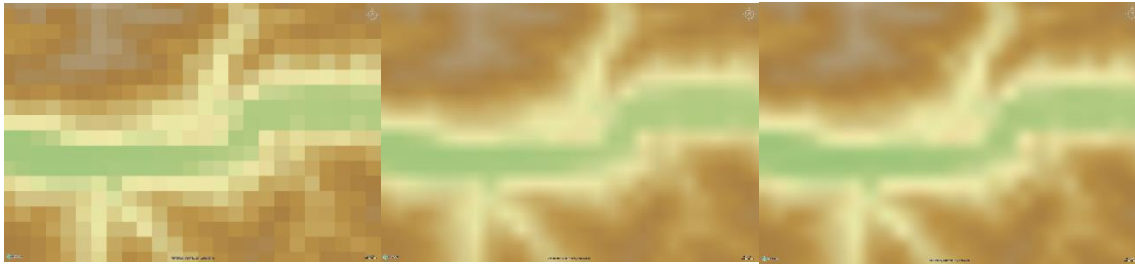


Figure 3: An illustration of nearest-neighbor, linear, and cubic interpolation algorithms. The pictures are zoomed in to illustrate the difference.

3D Tiles Processing Engine Automatically Takes Metadata into Account

When working with 3D tiles data that represents buildings, filtering or selection based on some attribute is a typical use case. The 3D Tiles Processing Engine has been enhanced to add best-effort metadata in certain cases. For 3D building data encoded in OBJ (one OBJ file per building) and for data generated by tools like IFCCovert (<http://ifcopenshell.org/ifcconvert>), building IDs are automatically added to the resulting 3D tiles dataset and service. If you are consuming such processed tiles using a LuciadRIA-based application, you will notice that you have these IDs available for selection and use in expressions.

Other Improvements and Updates

Military Symbology Support Enhancements

The existing support for military symbology on the CPU-based 2D view has been further brought into sync with the other implementations. This brings the benefit of improved accuracy on the GXY view, improved cross-product consistency in terms of rendering and editing, and improved performance, especially when halos are added for improved readability.

A few missing tactical graphics and unit symbols have been added, ensuring LuciadLightspeed offers complete support for military symbology following the APP-6D specifications.

ArcSDE Connector No Longer Distributed as Part of LuciadLightspeed 2020.1

The ArcGIS 10.2 series of releases with ArcGIS 10.2.2 in 2014 were the last releases that included the ArcSDE application servers and SDK. As a result, the connector for ESRI ArcSDE was deprecated within LuciadLightspeed since version 2016.0.

ArcGIS 10.2.2 is no longer supported by ESRI as of July 2019. At this moment, more than a year later, we have no knowledge of any LuciadLightspeed customer still using ArcSDE, so we have removed the ArcSDE connector from LuciadLightspeed 2020.1. If this impacts your project, please contact us at product.management.luciad.gsp@hexagon.com.



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