

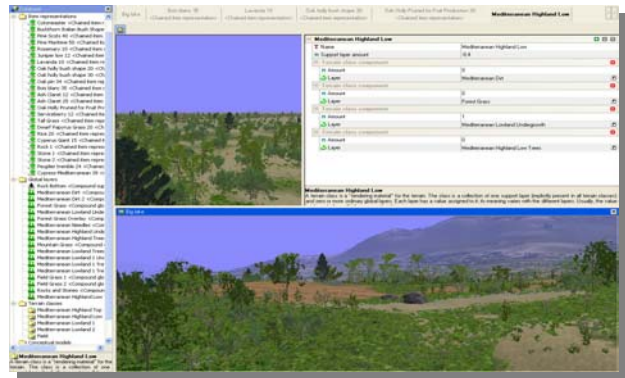


What's new with Blueberry3D® v2?

Major enhancements of version V2 compared to V1

This document gives a list of the main enhancements provided by the new version 2 for Blueberry3D in comparison with the previous V1.1 as well as a list of the main new core features.

The V2 is a major release in the Blueberry3D product life. The main modules have been completely rewritten, optimized and renamed. They now use a user friendly interface with a wizard for all common tasks which simplifies the use of the product and optimizes production time. Great new modules have been added like the Land Use Generator. Here are the major evolutions:



Blueberry3D RT Environment (formerly called Development Environment).

- Coordinate system supports the same projected systems as MultiGen-Paradigm's Creator Terrain Studio™ ,
- Rewritten and optimized core,
- Multi-threaded,
- Stable at 60Hz with even more detail,
- Stable and detailed crest-lines due to new adaptive tessellation algorithm,
- No more "hovering trees" due to terrain refinement,
- True support for very large databases (1.1 gave "jittering" geometry if Database was too large),
- Extreme viewing distances (limited only by depth buffer precision),
- Hierarchical database format,
- Generalized procedural geometry system,
- Simplified and redefined the "hard parts" of 1.1 (no more implicit dependencies between ortho resolution, tile side, and threshold settings),
- FID/SMC support for MultiGen Vega Prime™ "i-sectors",
- Dynamic shadows,
- Terrain refinement without "popping".

Blueberry3D Editor (formerly called Terrain Editor).

Database format

- Single-file database format makes databases easier to manage,
- Future-proof,
- Resources (textures, models, map data) are now referenced, and not copied.

Editor Application

- Redesigned GUI,
- Wizards for all common tasks,
- The Editor now supports import of objects from other databases. All dependencies of the objects are automatically Imported as well. Import is supported for terrain classes, *global layers* and *item representations*.
- New full database interactive preview. The preview can be docked and shown while the Editor is used, immediately reflecting any changes made,

- Multiple resource views can be opened at the same time,
- The synthetic ortho generator is easier to use and generates geo-referenced images that can be fed into other tools.
- The engine renders to a hidden frame buffer, so it can be run in the background,
- New, dockable log window, showing messages from the underlying Blueberry3D run-time system. This helps identifying missing resource issues.

MultiGen-Paradigm's Creator Terrain Studio™ (CTS) Plugins

- Since BB3D 2.0 supports coordinate systems, the *Generate BDB* plugin can now take list datasets for input, as well as gridded ones.
- Generates data ready for high-performance run-time visualization. No consecutive recompile of the data in a separate tool is needed.

The Land Use Generator

This application is new to Blueberry3D 2.0. This tool used to generate land use from external vector and raster data. It supports the vector color and the raster transparency.



Blueberry3D Features Summary

Run-Time

- Procedural geometry
- Adaptive LOD
- Unlimited detail
- Continous LOD transitions
- Irregular tessellation
- Projected coordinate system support
- Memory management
- Multi-threaded
- Dynamic shadows
- Multi-texture
- Compressed texture
- Off-screen rendering
- Statistics
- Virtual Texture paging
- Virtual Texture continous LOD transitions

VP Plugin

- Full sync. with VP Env, TOD, Lighting etc
- LynX Prime Panel
- Multi-threaded
- Isectors with FID/SMC support
- Distributed Rendering support

Database (BDB)

- External references to resources
- Extensible format
- Future proof

CTS Plugin

- Integrated into CTS workflow
- Generate BDB process
- Generate large BDBs
- Generate geo-referenced BDBs
- BB3D Editor Launch from CTS

Editor

- Full database interactive preview
- Multiple simultaneous views
- Terrain Class view
- Global Layer view
- Item Representation view
- On-line context help for all commands
- Synthetic geo-referenced ortho image generator
- Immersive environment – all changes gives visual feedback

- Wizards
- Undo/redo
- Import of individual objects from other databases
- Log window
- Land Use Generator

Formats

Geometry

- OpenFlight

Raster

- GeoTIFF
- .ded
- Arc/Info
- USGS DEM
- .sgi (.rgb, .rgba, int, .inta)
- raw (.888 etc)

- .png

- .jpg

- etc

Vector

- Shapefile

- Mapinfo

- etc