TBGL BONUS PACK

Latest version of TBGL Bonus Pack is represented as collection of scripts created by ThinBasic community using ThinBasic Graphic Library. All scripts require at least ThinBasic 1.6.0.10 to run.

TBGL provides higher level abstraction of some OpenGL mechanisms and adds some new functionality as well. TBGL can be combined with raw OpenGL, provided by header files *thinbasic_gl.inc*, *thinbasic_glu.inc* and *thinbasic_glext.inc*.

Samples are divided in 13 different areas for easier searching.

Animation

This subdirectory contains scripts, which demonstrate various animation approaches realizable in TBGL. Covered is both facial and body animation, including crowd scene.

Benchmarks

Benchmarks are programs to measure TBGL performance. Currently there is just one benchmark which can report how fast your PC handles display lists and model rendering. Results are reported in form of automatically created chart.

Entity System

Scripts in this section demonstrate some techniques which can be achieved using entity system, such as tile rendering and optimized way to seek for nearest object.

Game Concepts

This directory contains prototypes of games, including remakes of 8 bit classics such as Pong , space shooters and Arkanoids. Simple demo of controllable vehicle is included as well.
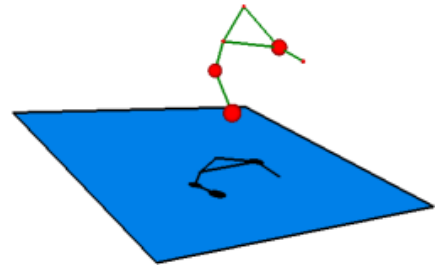
GUI and text

Scripts demonstrate using TBGL for designing Graphical User Interface, as well as handling simple text rendering.

Math

Programs demonstrating rendering of various mathematical function, including 3 dimensional ones.

Physics

Little demonstration of using Open Dynamics Engine with ThinBasic. Scripts show way how to visualize bodies from simulation and how to interact with them.

Post processing

This section demonstrates approaches used in current games, such as full screen or partial glow, radial blur, lens flare simulation and marking 3D objects using 2D overlay.

Procedural generation

Term "procedural generation" in context of graphics refers to creation of objects and surfaces on the fly, instead of loading them from files. Script in this section demonstrates approach for real time generation of trees.

Shader programming

Two example scripts with many premade shader programs show how to use GLSL language from within ThinBasic to produce visually attractive results. Scripts demonstrate use of both single and multiple shaders in simple scene.

Space and planets

Few scripts demonstrating multiple ways how to represent solar system using TBGL.

Provided source code shows how to design solar system using standard OpenGL approach and with help of entity system as well.

Special effects

Scripts show how to design and render particle systems, how to represent voxel geometry and how to do multi texturing as well.

Water and liquids

Scripts in this directory show different approaches on water handling, including streams and fake reflection, in ThinBasic.