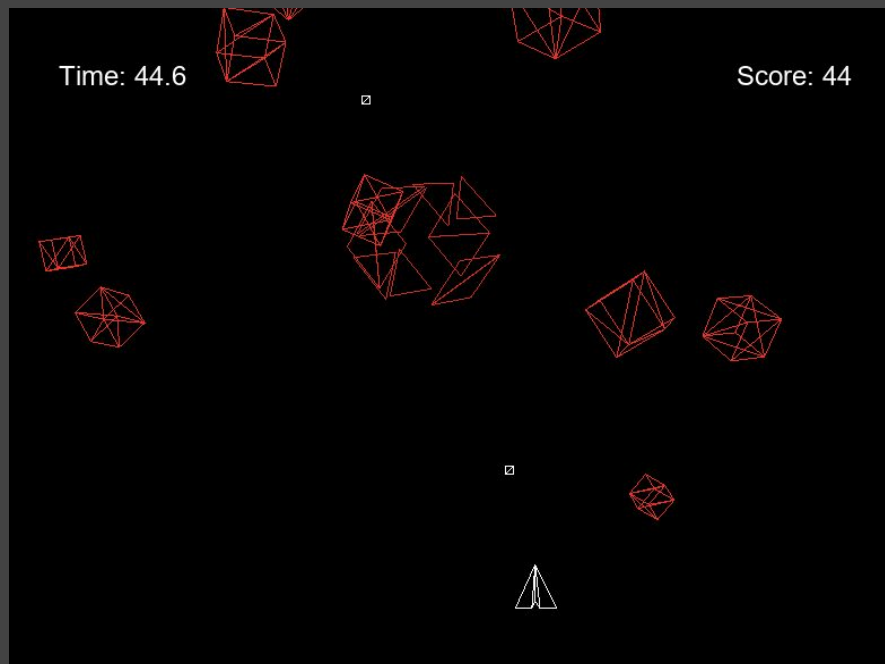




ASTEROIDS 11bitstudios

ASTEROIDS is a simple spaceship in an asteroid field game developed with a **custom C++ Game Engine**.



.Source code? <https://github.com/amuoz/Asteroids>

.How to PLAY? Download **Asteroid.zip** and execute **11bitsAsteroids.exe**

.Controls

A, D	Horizontal movement
SPACE	Shoot
R	Restart

.Configuration file

You can change the game's default configuration by editing **CONFIG.CONF** file in **config folder** (Do not change the names!)

Configuration will **HOT-RELOAD** after **restart** for testing purposes.



```
FORWARD_VELOCITY=4.0
ANGULAR_VELOCITY=6.28
THRUST=9999.0
MASS=300.0
FREQUENCY=1.0
FREQUENCY_INCREASE=0.02
BULLET_VELOCITY=15.0
BULLET_FREQUENCY=0.5
EXPLOSION_DURATION=0.5
RAPID_FIRE=1
DIFFICULTY_INCREASE=1.2
```

.Gameplay

Dodge the asteroids **and destroy** as much as you can in this **endless** game.

You have different **stages** that you can recognize by the **colors** of the asteroids. Be careful, their **speed** will also increase.



Rapid fire option has been added to enhance gameplay.

Asteroids collide and **bounce** between each other.

.Technical

.C++ Libraries

OpenGL3, GLFW, GLAD, GLM, FreeType, VS2017

.Interesting stuff

- Custom **physics** and **collisions**.
- **Optimized memory** usage recycling asteroids.
- Generic **entity pool**.
- **Actor** abstract class.
- **Geometry shader** explosions.