

AsteroidsGL

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REPORT

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Features

The game has had the following features added:

- (1) The game has sounds and background loops
- (2) It has an FPS counter in the bottom left. This is how I found out my phone has a 60FPS limit.
- (3) Has a camera class with required functionality.
- (4) Ship has a small 'vibrating' flame
- (5) HUD displays level, health, score, FPS.
- (6) We have 3 common sizes and an occasional 4th (very large)
- (7) Asteroids break into smaller asteroids.
- (8) Added a bunch of point entities breaking away from explosions (also added a smoke trail being a bunch of points, with OpenGL this stuff even renders smoothly when using enough to make it look neat! :D)
- (9) -

Of the extra features we have only:

- 2) Levels
- 3) I did add a list of PointF's so that we don't create new ones every time, is that how this was intended, or should we pass on a reference to *that* static list? All I did was prevent new PointF being called loads every time.

Credits

Background soundloop taken from:

<https://www.looperman.com/loops/detail/203298/phased-r-and-b-organ-1-80bpm-rnb-organ-loop>

And another is: Up to no good (loop) from

<https://gamesounds.xyz/?dir=OpenBundle/Background%20Music%20and%20Loops>

All other sounds created with: <https://www.bfxr.net/>

Consulted and used Msell's answer on

<https://gamedev.stackexchange.com/questions/7862/is-there-an-algorithm-for-a-pool-game> for pool collision physics. His implementation seemed to assume there would be few collisions and friction so in my version it eventually loses some speed and doesn't consider weight to avoid tiny speeding asteroids.