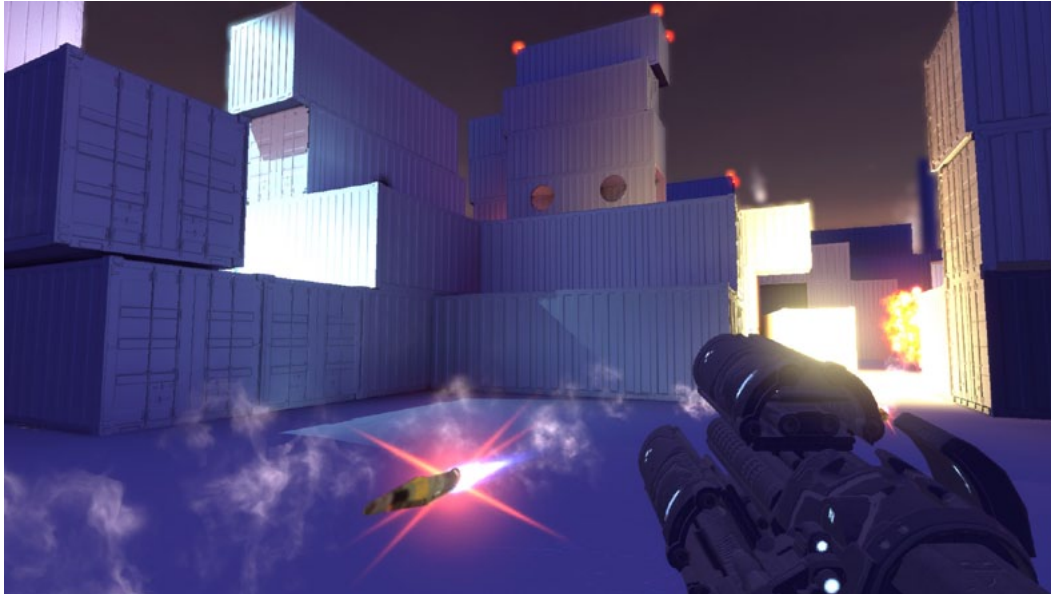


Enlighten Real-Time Radiosity

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Using Geomerics Enlighten technology, this demo shows how dynamic real-time lighting enhances game play and visual quality in computer games. Enlighten is a cross-platform, real-time radiosity solution that can generate bounce lighting for a game level in a fraction of a frame. By combining Enlighten real-time radiosity with a fully dynamic lighting environment in Unreal Engine 3, the demo shows how lighting can add an extra dimension to the traditional first-person shooter.

The demo shows the death-match level on a CUDA research platform, which provides an insight into lighting in the next generation of top-tier games. The death-match level contains 100 fighting “bots”, each with a flashlight, sentry rocket turrets, and vehicles with headlights. All lights are shadow casting, and they bounce radiosity lighting.

Weapon fire and explosions contribute most of the lighting to the scene. Action-filled shoot-outs light up the screen, with the radiosity lighting providing most of the fill lighting. The player can control the lighting in the immediate environment through weapon fire and see the lighting from distant fights as it illuminates the level. Dynamic changes in the time of day change the mood and atmosphere in the game, and the demo compares the appearance of the game with and without radiosity lighting.