

TRITON 3D OCEAN & WATER SDK

3D WATER IS HARD. SAVE YEARS OF DEVELOPER TIME WITH TRITON.



Dynamic Ocean for Any Beaufort Scale

Triton produces real 3D waves with unprecedented realism and speed. This isn't just another 2D water shader – it's a 3D ocean simulation.

- GPGPU-Accelerated Wave Simulation using CUDA, OpenCL, and DirectX11 Compute Shaders
- Over 65,000 individual waves at over 500 frames per second
- Fresnel refraction and reflection
- Planar and environmental reflections
- Smooth coastline blending
- Breaking waves along shorelines
- Particle-based spray and foam
- Add swells from distant storms
- JONSWAP, Pierson-Moskowitz, and Phillips wave models.
- Handle Beaufort scales and Douglas Sea States 0-9
- Underwater "god rays" and visibility effects



Ship Wakes, Impact and More

Your water has stuff in it – no problem. Ships, helicopters, and projectiles can all disturb Triton's water with 3D wakes, waves, and spray.

- 3D Kelvin wakes from ship bow and stern
- Propeller backwash / turbulent wake effects
- Particle-based spray at the bow and along the hull
- Helicopter rotor wash effects with 3D wave displacement
- 3D impact simulation from projectiles
- Tidal stream wakes from stationary objects
- Fast height queries for powering buoyancy models
- Volumetric decal effects that move with the water surface

Easy Integration with your Engine / Application

Triton integrates into most engines with just a few lines of code. Like hundreds of other developers worldwide, you'll be up and running quickly.



- Support for OpenGL 2.0, OpenGL 3.2+, DirectX9, and DirectX11
- Libraries for Windows, MacOS, and Linux
- Integration kit for Unity Pro
- Sample code for OpenSceneGraph (OSG), Ogre, and more
- C++ and C# API's provided
- Works with any coordinate system, including whole-Earth ECEF / geocentric.
- Renders infinite oceans or shades your own water mesh
- Fast, responsive technical support

