

Hello, Ladies and Gentlemen! I present Ploobs Engine, our game engine. This article is a little presentation about the 0.4.1 version of the PloobsEngine, showing its features and capabilities.http://ploobs.com.br/wp-includes/js/tinymce/plugins/wordpress/img/trans.gif

## Main Release Notes

* Integration with Nvidia Physx
* Added lots of New Demos (Artificial Intelligence, Physx, Customizing Shaders …)
* Added New Materials (Dynamic Env Map, GeoclipMap Terrain , Quad Terrain)
* Integration with RVO Crowd Simulation System and Assimp Model Loader

**What is Ploobs Engine?**

It is an engine for creating games and graphics applications developed in XNA 4.0, C #. Net 4.0 and HLSL. It is designed to be simple and easy to use even for those unfamiliar with computer graphics programming.

The framework developed is quite extensive and consists of several modules responsible for most common tasks used in games, such as: Input Control, Simulation, Physics, Graphics Rendering, Artificial Intelligence and Control Features. Graphics are the main focus of this engine. It uses deferred shading rendering, which is the same technique used in games like [Startcraft II](http://eu.battle.net/sc2/en/" \t "_blank), [Crysis II](http://www.ea.com/crysis-2" \t "_blank) and [KillZone II](http://www.killzone2.com/" \t "_blank). The majority of this engine was built as part of our graduation project. An in-depth explanation of the graphics techniques used and our implementation of those techniques can be found [in our thesis](http://www.codeplex.com/Project/Download/FileDownload.aspx?ProjectName=ploobsengine&DownloadId=217469) (In Portuguese).

**What are the Key Features?**

The PloobsEngine supports almost all the features of the Directx 9c graphics API, with the main features being:

* Full Support for Windows Phone 7 (with SilverLight) and PC (Reach and HiDef Profiles)
* [Deferred Rendering](http://en.wikipedia.org/wiki/Deferred_shading) with support for bump mapping, specular mapping, glow mapping and parallax mapping (Only for PC)
* Forwarding Rendering with limited Directional Lights and Environment Mapping (For PC and Windows Phone 7)
* 2D and 3D Particle Systems
* 2D and 3D Physical Simulation
* 2D and 3D Sound
* 2D and 3D Dynamic Lights with Shadowing (Only for PC)
* 3D Animation by Bones (Bone Animation)
* Terrain
* Vegetation (Only for PC)
* Reflection and Refraction in Real Time (Only for PC)
* Several classical algorithms of Artificial Intelligence
* …. For a much more complete list of features, take a look [here](http://ploobs.com.br/?page_id=1392).

We used different algorithms and techniques found in games that are currently on the market. Whenever possible, we chose algorithms that exploit the strengths of the GPU. Our greatest advantage in using this technique is in the extreme Deferred Shading where the XNA Engine excels.

**What do you need to start using the Ploobs Engine?**

For ease of use, only a basic knowledge of C# is required. An intimate knowledge of computer graphics or XNA is not needed.

For the developer, you must install the XNA 4.0 SDK, Net 4.0 Framework and Visual Studio 2010 (full or Express). In terms of hardware, you only need a video card this is compatible with DirectX 10.

**Where do I start?!**

Take a look at our [basic tutorials](http://ploobs.com.br/?page_id=1379) section. After, look at the demos included in this Release (more than 70 demos =P).

We are working to create more tutorials and full demos (small showcases combining many features). Any doubt contact us in our [forum](http://ploobs.com.br/forum/)or in our [mail](mailto:contato@ploobs.com.br).

**How the engine is distributed?**

Currently the forms of distribution are:

* Complete source code is available in our [Mercurial repository](http://code.google.com/p/port-ploobsengine/)
* Single MSI Installer
* Using the PloobsInstaller (app that automatically downloads the latest version of the engine from our server)

The idea is to periodically release a stable version and several intermediate betas. If a critical bug is found, we will fix the stable version as soon as possible. The demos and documentation file will be updated only at the launch of stable releases. The documentation on the site will be updated when the intermediate versions are released. We intend to maintain compatibility with older versions whenever possible.

This Version of the engine uses a ***Dual-License model***. For more info [***CHECK HERE***](http://ploobs.com.br/?page_id=1371)***.***

**Our Close Roadmap:**

In the near future we intend to improve the stability and documentation, as well as fix the bugs that will "emerge”. We are also working in a XBOX360 and MonoGame port.

**Join us!**

We need people who like computer graphics (it requires a prior knowledge, we have various materials to aid the learning of staff), mainly programming shaders (the code that runs on the video card). Volunteers welcome! Also we need people willing to create the demos and showcases (no need to mess with the core engine). Questions? Want to know more? Mais us: [contato@ploobs.com.br](mailto:contato@ploobs.com.br)

**Creators:**

* Thiago Dias Pastor
* Bruno Duarte Correa

**Links:**

* License page: <http://ploobs.com.br/?page_id=1371>
* Tutorial Page: <http://ploobs.com.br/?page_id=1379>
* Source Code Page:  <http://code.google.com/p/port-ploobsengine/>
* Forum: <http://ploobs.com.br/forum/>
* Mail: [contato@ploobs.com.br](mailto:contato@ploobs.com.br)
* Our Twitter: @[ploobsengine](http://twitter.com/ploobsengine)

