unity

Mike Hergaarden
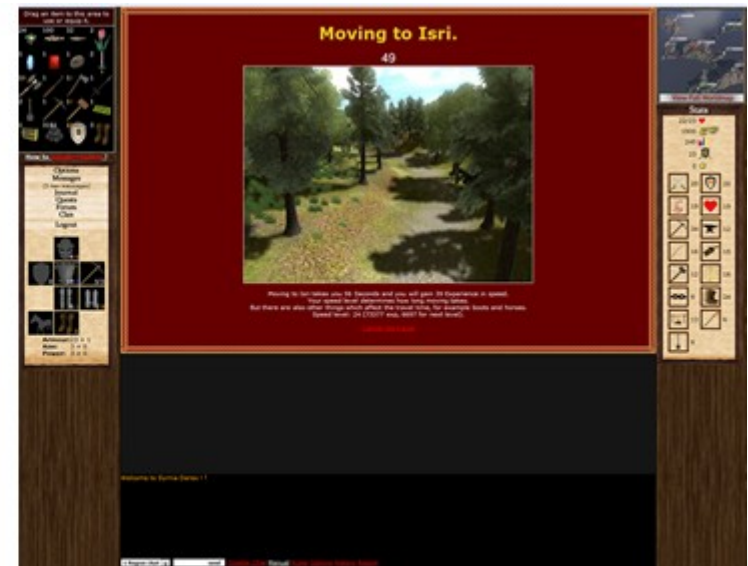M2H - www.M2H.nl
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GAME STUDIO

About M2H: Started 2004

+/- 2004: Browserbased PHP(MySQL) games.

- WarriorFields
- Robot Revolution
- Syrnia

About M2H: Syrnia

Since 2005 316.880 players have registered.
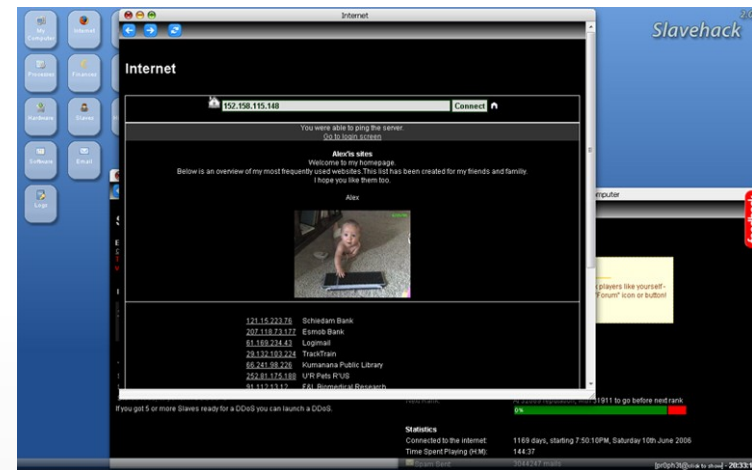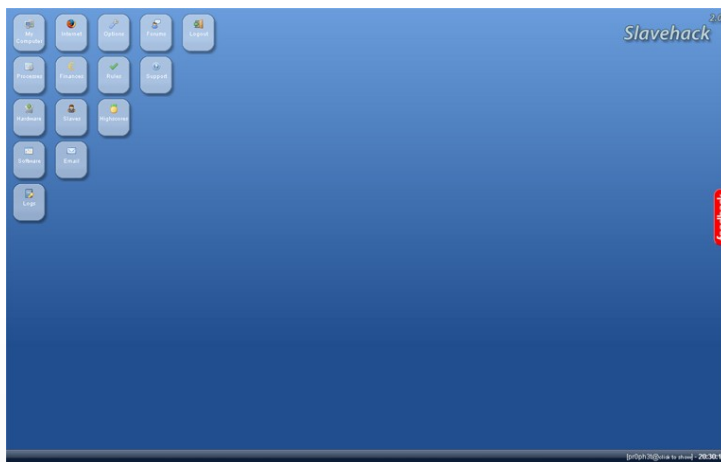+/- 600-800 online simultaniously

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About M2H: SlaveHack

Reached major succes the days it launched: **DIGG** frontpage 10.000+ new users over night. 'OK' after that (time constraints!)

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About M2H: Unity!

+/- Early 2008 Discovered Unity (Mac-only back then)
• Apple Dashboard widgets
• Created Wooglie.com the first Unity-only game portal
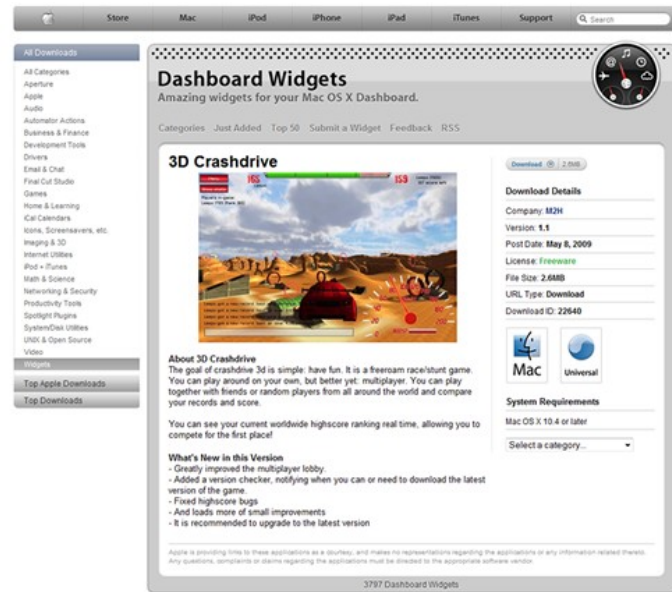
1.318.953 widget downloads

About M2H: iPhone → Fail

- June 2009 Started iPhone development
- August 2009 <u>Stopped</u> iPhone development
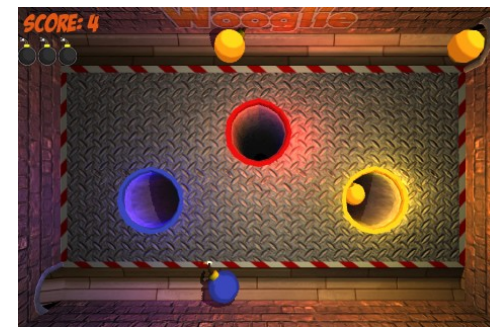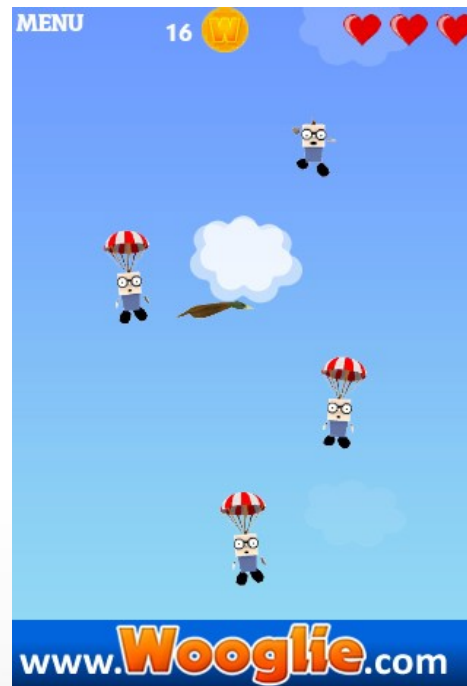
About M2H: Making a name

- #1 at the UniKnowledge contest „Unity Networking tutorial"
  (very good for job offers+reputation!)
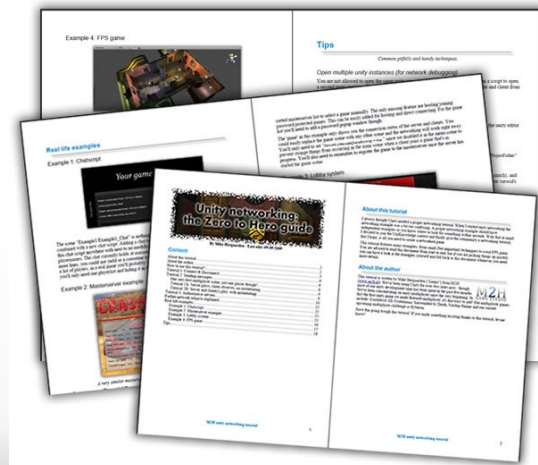- Met development studio in Antwerp
- Was introduced at Netlog in Gent
  - Netlog was/is creating new gaming platform „Gatcha".
  - Got a contract to develop games to launch with Gatcha

unity

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About M2H: Current projects

- Unique **music game** for a famous DJ
- Greatly improved „**Crashdrive 3D**", launching it on Gatcha
  - *Also about to launch it on Bigpoint.com*
- **Verdun Online** (Multiplayer FPS game about the WW1)

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What is unity?

- (Serious/Educational) (Web-)Games
- Architecture
- Visualisation
- … I'd use it for any 3D/2D application

„Unity is a multiplatform game development tool, designed from the start to ease creation. A fully integrated professional application, Unity just happens to contain the most powerful engine this side of a million dollars." - *www.unity3D.com*

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The company behind Unity

• 2005: Started with 4 people in Copenhagen
• I used to „know" the entire staff by name..
• Doubled staff the last year
• Very international right now (offices/staff all over the world)

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Some unity examples

Flashbang / Blurst

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Some unity examples

EA games
- Tiger woods PGA tour online
- (Free) FIFA Online
- Need for Speed: WORLD

M2H GAME STUDIO
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Some unity examples

Cartoon network
 • Fusion fall MMO: *First big company to use Unity: Added quite a lot web specific features to Unity (i.e. streaming)*

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Specifications: Editor

Editor highlights

• Works on Mac and Windows

• Deploy any project to all the supported platforms easily

• Play/Pause and Edit in the editor

• Prefabs

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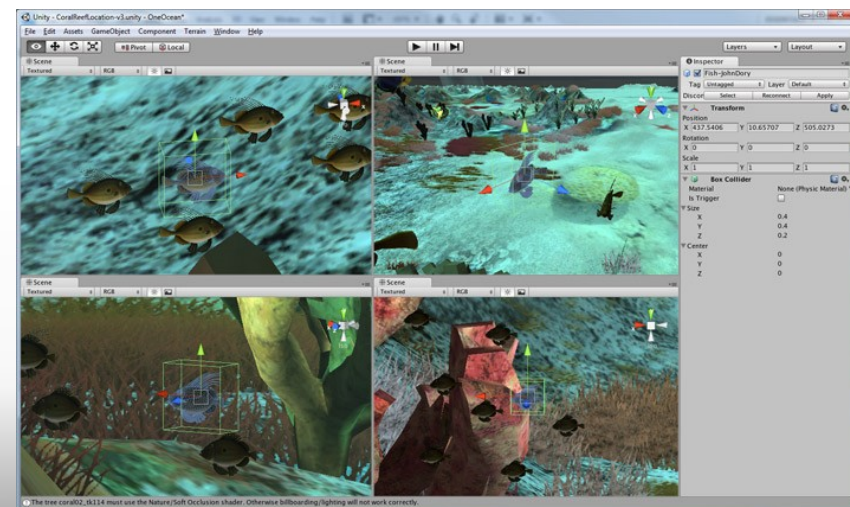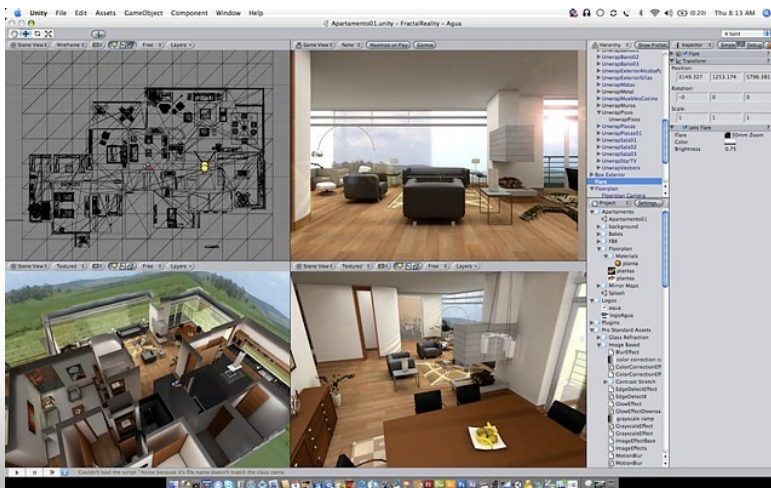
Specifications: Asset importing

- Great range of supported formats
  - Maya, 3D Studio Max, Cheetah 3D, Cinema 4D, **Blender**, Carrara, Lightware, XSI, SketchUP, Wings 3D, 3D Studio, Wavefront, Drawing Interchange, Autodesk FBX, **Photoshop**, JPEG, PNG, GIF, GMP, TGA, IFF, PICT, Ogg Theora, Ogg Vorbis, MOV, AVI, ASF, MPG, MPEG, MP4VIDEO, AIFF, WAV, Mp3, XML, RTF, DOC, ...
- Automatic importing
- Texture handling

Specifications: Asset server

- Think of it like **SVN**, but even better.
  - Better because it can handle **metadata** (graphics, unity scenes)
- You can run the asset server on your own **Mac, Linux or Windows server**
- Being able to use the AssetServer requires a Unity Pro **license „addon"** though(!): 370€ excl. VAT

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Specifications: Platforms

Supported platforms:
• Right now:
  • **Windows** (standalone, webplayer)
  • **Mac**(standalone, webplayer, dashboard widget),
  • **iPhone/iPod Touch/iPad, Wii**
•Summer 2010 and/or beyond:
  • **XBOX360**
  • **PS3**
  • **Android**

  „Develop once, deploy everywhere.“

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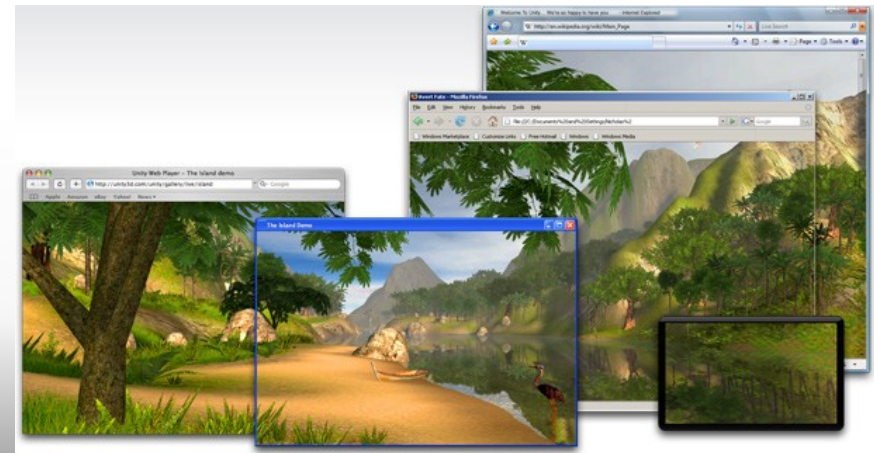
Specifications: Webplayer

Unity Webplayer

- 3.1 Mb webbrowser plugin
- 4 clicks to installation (Firefox, windows)
- Supports 'all' browsers (Chrome, Firefox, IE, Opera, Safari)
- Seamless installation
- Automatic updates
- Streaming the .unity3D game
- Full hardware accelerated graphics (unlike flash!)

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Specifications: Scripting

Scripting – Languages

- C#, Boo, Javascript(*UnityScript*)
- What language to choose?
  - Javascript: Quick&Easy, many tutorials
  - C#: 'No limitations', best?
  - Boo: ...?
- Debugging/Profiling

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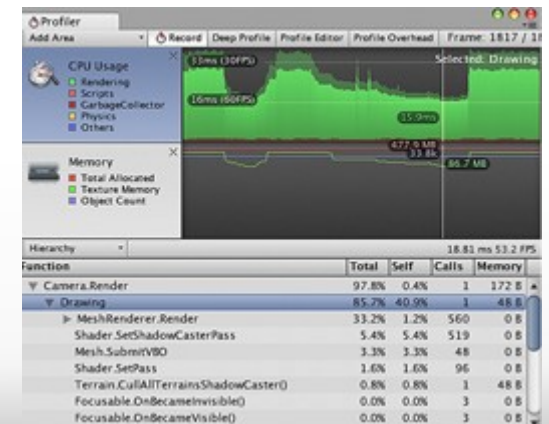
Specifications: Editors

Scripting - Editors:
• JavaScript:
  • **UnityDevelop**
  • UniScite
•C#:
  • Visual Studio
  • **MonoDevelop** (Unity 3.0!)
•Boo
  • ...
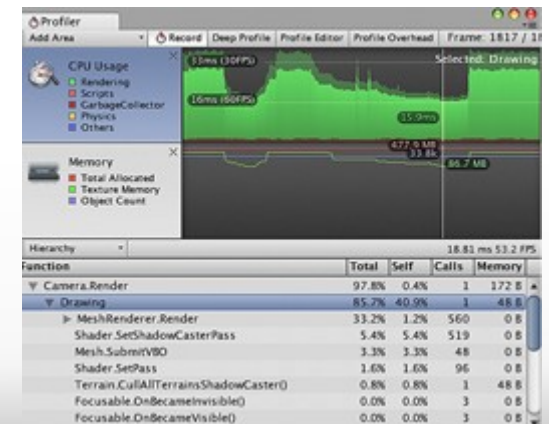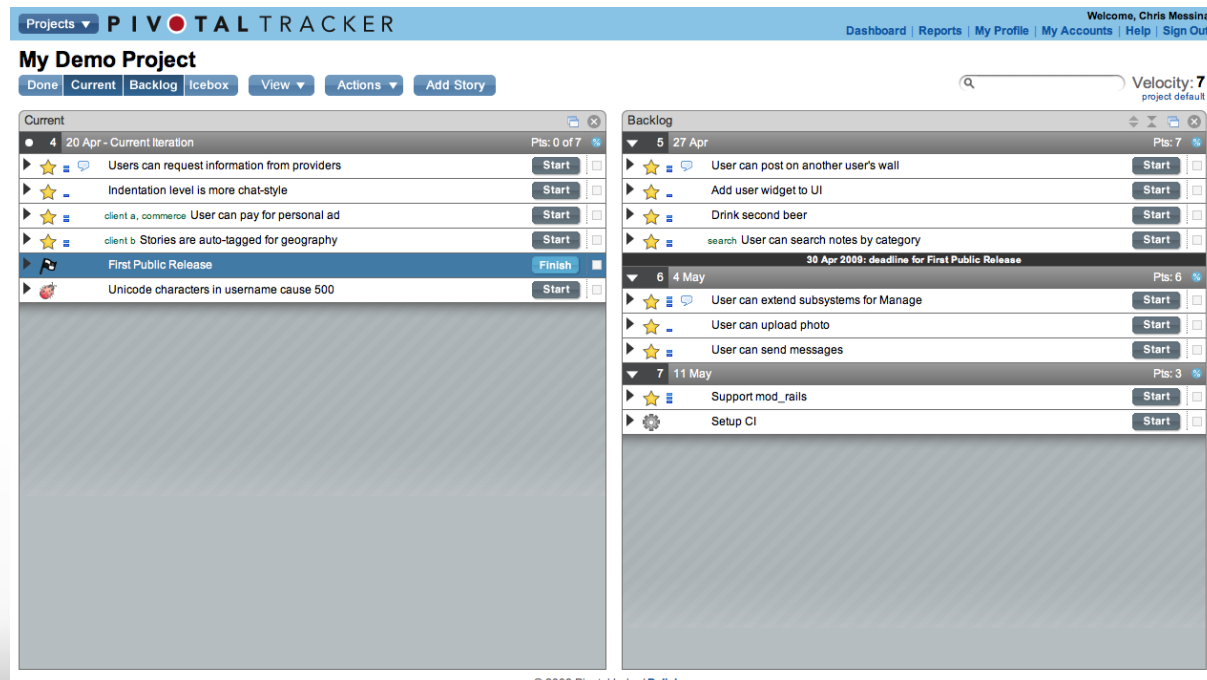
Project management

While we're at it...
 Great project management tool
   • PivotalTracker - http://www.pivotaltracker.com/

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Specifications: Graphics

- Speed
- Great support for old videocards
- DirectX 9 AND OpenGL support
- Particle system, lightining, soft shadows....
- Shaders: 40 Built-in shaders, Post-Processing effects (Glow, blur, Depth of Field)
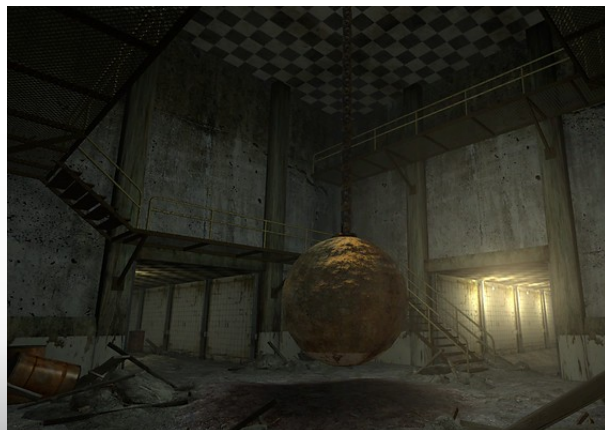
Specifications: Terrain engine

Terrain Engine

- Heightmap
- Tree's/Details (billboarding)
- Speed
- No overhangs

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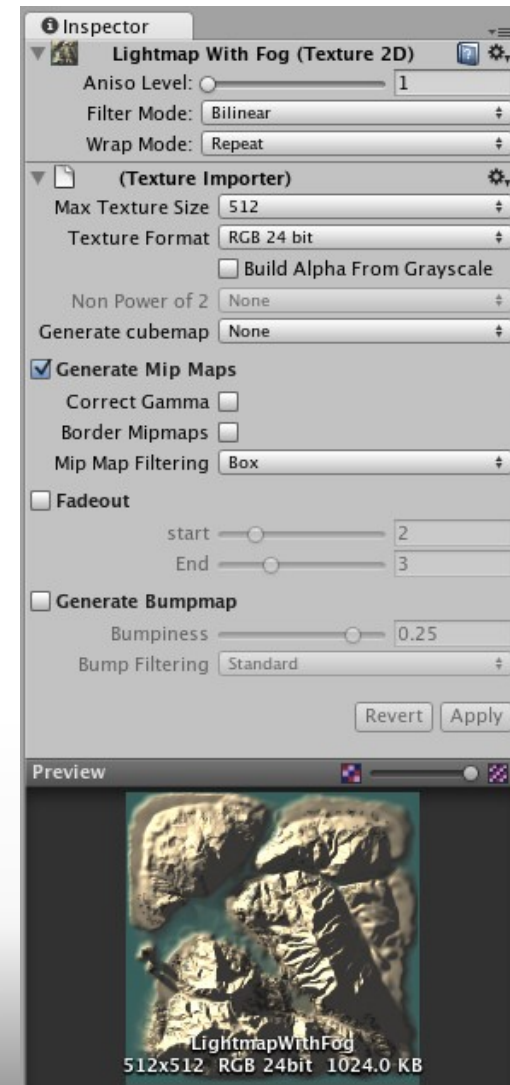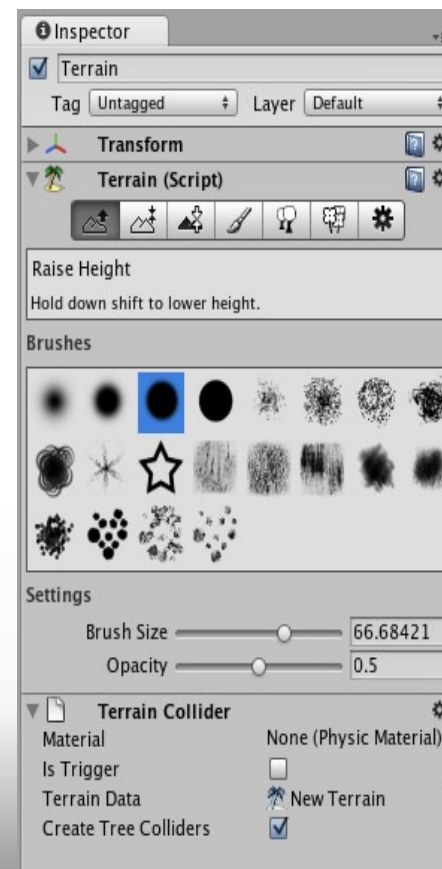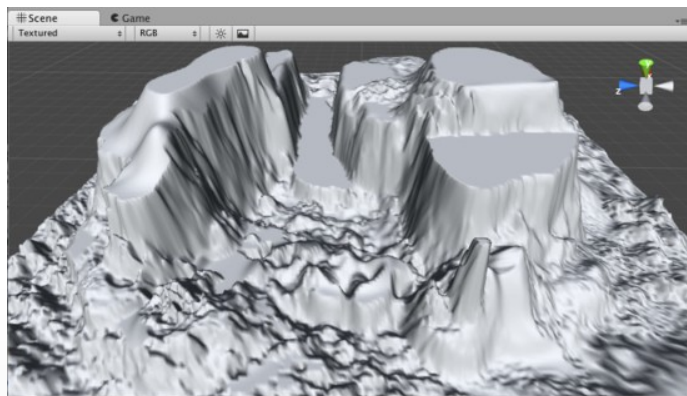
Specifications: Networking

• Based on RakNet
• MasterServer and connection tester
• RPC calls
• Works great for „minigames" and the likes
• WoW not realistic, use a plugin like Photon
• Multiplatform (iPhone vs Windows user)

Specifications: Physics by PhysX

- Very easy to setup a ragdoll or a rigidbody
- Joints
- There's really not too much to it..
    - Even though physics are very ahrd to tweak sometimes!

Specifications: Audio & Video

- Built-in 3D audio
- Pitch/Doppler
- Video streaming
- Recently switched to FMOD

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Unity resources

Documentation / Tutorials

- Quite some official documentation/tutorials
  - http://unity3d.com/support/documentation/
- Community Wiki (Collection of scripts/tutorials)
  - http://www.unifycommunity.com/
- IRC channel:
  - #unity3d on Freenode
- Active forum:
  - http://forum.unity3d.com

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The future of Unity

- Unity is growing rapidly (Funding, exposure, EA games)
- Unity's selling points will most likely keep improving
   (Asset pipeline, editor, platform deployment)
   → Unity 3.0..

Unity 3.0

- Trialer
- Deferred rendering (hundred of lights, performance)
- Unified editor
- Xbox360 support
- PS3, Andoid following later(?)
- Occlusion culling by Umbra
- Lightmapping by Beast
- Source level debugging (Monodevelop)
- More (FMOD) audio functions exposed
- Project browser
- More...

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Contact

See M2H.nl for twitter/facebook/youtube/email