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1.1.3.3 3.3 Roadmap	

Main Page Mankind-Worlds



You can find here all the details and discussion around Mankind-2, Mankind-Worlds or Mankind-Evolution Project, whatever the name for the instant.

You will show pages as Hierarchy on the left column for a better navigation and view.

Recently Updated

3.2.4 Database created by Thierry PROST	about 7 hours ago
3.2.x Resources updated by Thierry PROST (view change)	about 8 hours ago
3.1.2 Camera Movements updated by Thierry PROST (view change)	about 9 hours ago
3.2.3 The 3D Engine updated by Emma PRADAL (view change)	about 20 hours ago
3.2.3 The 3D Engine updated by Thierry PROST (view change)	yesterday at 10:27 PM
PlanetAndRingVideoThumb.png attached by Thierry PROST	yesterday at 10:16 PM
planet 304.jpg attached by Thierry PROST	yesterday at 10:16 PM
moon.png attached by Thierry PROST	yesterday at 10:16 PM
gasgiant 8.jpg attached by Thierry PROST	yesterday at 10:16 PM
def lighting 8.jpg attached by Thierry PROST	yesterday at 10:16 PM
3.1.1 Overview updated by Thierry PROST (view change)	yesterday at 8:29 PM
2. Mankind - Original Concept updated by Thierry PROST (view change)	yesterday at 6:33 PM
3.3 Roadmap updated by Thierry PROST (view change)	yesterday at 6:20 PM
illu08 silverbow 8.png attached by Thierry PROST	yesterday at 6:20 PM
3.2 Technologies updated by Thierry PROST (view change)	yesterday at 6:20 PM

0. Summary



Plan for this document:

1. MMOG Industry



- 1.1 Overview and History
- 1.2 MMOG Market
- 1.2.1 In Europe and North America
- 1.2.2 In Asia
- 2. Mankind Original Concept



Please find in the next pages history of original Mankind.

After reading this lines, you should have a test on original game you can find here:



The demo is free and I think it's important before working on a game that you test it.

Please also find this big battle video here to get an idea:

2.1 Initial History

(cf. from the wiki at http://en.wikipedia.org/wiki/Mankind %28video game%29) - (you can find the wiki in French also at http://fr.wikipedia.org/wiki/Mankind).

Mankind was initially published in December 1998 by the French computer game developer company Vibes Online Gaming.

After the bankruptcy of Vibes, the game was bought by O2 Online Entertainment Ltd and while still active today, is was primarily maintained by Quantex between 2008 and 2012.

Today, Mankind is left "as is" with minimum maintenance and support.

Estimates of the number of active players are hard to come by - while the official site claimed both 145,000 and "more than 200,000" players on the same page, these figures likely included inactive as well as trial accounts. According to an interview with an O2OE spokesman, just about 3,000 accounts were active anymore in May 2003.

During the game rework of Quantex in early 2009, the graphic engine of Mankind got fully ported to DirectX 9 and full support for Windows Vista got implemented. Further, dozens of small improvements got implemented.

--- (End of Official Wiki History part) ---

2.2 Gameplay

(cf. also from the wiki at http://en.wikipedia.org/wiki/Mankind %28video game%29).

Equipped with one construction unit, a *Vibz*-type starship, and a small amount of credits, players start out in a guarded star system ("Imperial system") to eventually create their own empire. Typical first steps in *Mankind* con

sist of building a small base on one of the nearby planets and mining available resources which could either be sold or used to construct further units. Later, a player can leave the safety of the Imperial systems behind and colonize his own star system.

Environments

Planet surfaces as well as the space in star systems are realized as separate two-dimensional square game maps, called "environments" in game jargon. While space maps have borders, planetary maps are virtually borderless - units leaving the map at the eastern border reappear in the west, those leaving in the north reappear in the south.

Each environment can contain player units and installations. Some restrictions exist, such as land vehicles only being able to operate on planetary maps, or specific starships not being able to enter planetary environments.

Only one environment per player can be active at a time. Players can switch between maps by loading the unit content of a new environment, thereby leaving the old one.

Game universe

The game takes place in the so-called "Mankind galaxy". The galactic map available for navigation is divided into sectors of space ("cubes" in game jargon), each of which might contain between zero and about 25 stars. Each star system contains between 5 and 8 planets.

Early game reviews talked about a total sum of 900 million available planets, each with their own climate, seasons and population,- a figure that was repeated in advertising text on the game box and even topped by the official website, which claimed several million systems and billions of planets.-

In fact, a majority of these planets and star systems were unavailable ("closed") at the initial release of the gameand have never been opened afterwards. During the two game resets since its release, the layout of the Mankind galaxy was changed and its size reduced. The last released galaxy consists of 73,251 star systems with 476,265 planets.

The persistent universe feature means that even when players are not involved in the game their mines extract ore, factories create equipment, ships continue commerce, and combat units continue to do battle. The game also has option to allow the user be notified via <u>cell phone text message</u> if their units came under attack.

--- (End of Official Wiki Gameplay part) ---

2.3 What's the situation today?

Now in 2012-2013, Unfortunately Mankind is no longer supported by O2OE and Quantex did close for undefined time. Only a few hundred accounts are remaining and while Mankind got loudly called to death already years ago it is still there. Not sure about this, but normally servers will continue to run while three years minimum and Mankind could be stopped after that. That's why we are here!

So you can find the announce from the official MK website here:

•	Official Message from O2
	Dear players of Mankind,

first of all we want to thank you all for your enthusiasm and patience during all those years... no matter if you are still taking actively part on the Mankind universe or not

Mankind will celebrate it's 13th anniversary in september 2012 and it's really a big performance to be online for that long.

Mankind, initially developed by the french company Vibes SA and three friends bound together by a vision and dream. The development started around 1996 when the topic MMO was rather new to the genre.

In january 1999 Mankind got first released as version 1.0 and could be bought as a CD Box at stores all around the world – as such, it was one of the first massive multiplayer online games created and probably the first build up strategy MMOG of it's kind.

The french publisher Cryo Networks did market Mankind worldwide and Mankind went finally "pay 2 play" around september 1999 with version 1.5

After world wide sales of boxes in stores aswell as direct download distribution through the online service from Vibes, Mankind did reach it's peak around february 2001 with a total number of 29.000 active subscriptions, 1.000th of active players playing at the same time and a rise of about 1.900 new paying customers each month.

Unfortunately Cryo went into bankruptcy themself about one year later which might be a main reason why Vibes went into problems after aswell.

In 2002, Vibes went into final bankruptcy and the Hong Kong based company O2 Online Entertainment Ltd. bought all assets from them as they did already market and sell Mankind in Asia.

During that time, cheating and DOS attacks became a very big problem and while it took almost one full year to take over Mankind and all controls from the french commercial court, Mankind got almost cheated to death in the meantime.

Further, no full backps did exist and it took years to get back full control of all aspects of the game and it's services as several libraries had to be rewritten from scratch.

With the cooperation of the company TOL (later Quantex SA) in 2008 Mankind managed to get back to a more regular update shedule and got a major polish on features and visuals by the game update 1.9, released on february 2010.

While several smaller improvements followed, version 1.9 was the last big game update released.

Today, Mankind is still available and open to customer all around the world and will continue as long as the community will bear it.

While we are sorry to not being able to support this project like it would deserve it, we invite all interested to try out Mankind as long as it is still available.

You can find the French translation here: http://forums.mondespersistants.com/showthread.php?t=237195

Here is the forum talk about that announce with feivel (Oliver): http://forums.delphiforums.com/n/main.asp?webt-ag=mko_en&nav=messages&msg=11291.1&prettyurl=%2Fmko_en%2Fmessages%2F%3Fmsg%3D11291.1&g-id=2005941764

We need to remind here that Mankind is the first MMO Real Time Strategy game with a persistent world and still have a concept that which have never been done again until these days.

That concept enjoyed many players during the 13 years and a lot of fans is still here today despite the very old gaming technology of the first Mankind opus.

That players yelling a lot about the old used technology and really wants a new game. You can find them in Mondes Persistants Forum or Mankind Outpost Forums. A lot of ideas resides in that places for a future of Mankind.

That's why the idea of making a new Mankind game could enjoy many of them and a lot of community support could be gained by thousands of actual or old players...

So, we need to do something to raise up that concept in a new Mankind game development!

3. Mankind-Worlds Design



You will find here specifications and some ideas around the project.

• Website URL : http://www.mankind-worlds.com

• 3D Engine : <u>Unity3D</u> or <u>Inovae-Engine</u>

3.1 Game Mechanics



3.1.1 Overview

Mankind-Worlds Introduction

Mankind Worlds is a science/fiction based build up strategy game set in a Massive Multiplayer Online universe which takes place in a not too far future.

3.1.2 Camera Movements

Camera movements and control will change a lot since first opus.

Mankind was built into 3D but was not real 3D anyway, because in space, all buildings or ships movements are placed into a single flat line view. We got x, y axis but not z axis.

Left mouse button :

- click : select items, ships, buildings, menus.
- maintained-pressed : select many units at once.

Right mouse click:

options menu (depends where the click have been done)

Mouse wheel:

Improved Zoom in / Out :

We will take example as EvE Online here, max zoom out is infinite and can show large amount of units / builds as small dots.

About zoom in, it will depend of selected unit(s) and will zoom pretty close on that unit, but when we get more deeper close, you get inside the selected ship, where you will have a interior view of the ship, and will be able to pilot it like on a simulation space game.

It's like a **commanding view** using mouse wheel and gives Bézier curve far away from selected items in the start and get you inside the ship at the closest view.

If multiple selected items, we will need to define what's the ship will be piloted from all that selection (maybe a command ship that gives ability to gives order to the whole fleet, in the same way you control that units from a far way distance.

X3: Terran Conflict game was giving the ability to give orders to other fleet ships and was in a First Person view.

To get an idea of the Bézier curve and mouse wheel camera movement (do not show inside a ship but show that concept is possible), please see that small video of Sins of a Solar Empire:

Interesting, no?

The music is not so terrible anyway.

The differences from this video is:

- we have here a flat view for the positions of the ships, we won't have a flat view in MKW development but real 3D.
- we do not see ship interior while zooming max in.
- we could have a transition effect while getting inside the ship.

You get the idea, to continue ...

3.2 Technologies



3.2.1 Development Methodology

This is the first page where we will drop some first ideas about the concept of Mankind Worlds.

As a team (and a developer team) we will use AGILE methodology on that first page, but what is AGILE ?



This is AGILE!!

The idea is to drop ideas like we paste stickers on a white-board, discuss around them, and accept it or not and adding more details on these ideas.

The goal is to make a technical document, as precise as possible, divided in topics and pages on this blog. Analyzing also latest gaming technology which could be good to use.

Additionally, we will need to make a financial plan in another document to analyze the gaming industry market, create a road-map, and do an estimated funding needs for our project, including team, softwares and works time to put it to the end.

The further goal will be to have a working demo and video, and before demo, to present the project to O2OE company in the best conditions.

If we meet requirements, and then O2 is interested by the project, we will be able to build a final team and work on the final product itself.

You should know it now, we will not doing anything without a solid concept, financial plan and time table.

3.2.2 The future of IT (Gaming) sector

You should know it already, computer selling is going down actually dramatically, which is the contrary of other ergonomic devices (like smart-phones, tablets, ...).

Hardware is changing a lot since the past years and ergonomics is clearly the future of IT sector.

We have to take this in consideration around a game development by make the game working on / with:

- Standard configuration like Win 7/8, Unix based computers (Linux, BSD, Mac, ...).
- Consoles (Wii U, new PSX, XBox, or maybe transportable consoles).
- Mobiles Devices and Tablets (from the start for chatting, and specific in-game functions; at a later time, to be able to play the entire game in that devices, when hardware will permit it on that devices, or by cloud gaming services).
- Ergonomics devices instead of a keyboard or a mouse...

I'll extend more on that last point. I mean here using last 3D View technicals, or actually, we can see the come-back of Virtual Reality devices, or mind-control devices, and you should already know existing XBox Kinect or Wii movement detection.

Here is some links about VR latest technologies for example Occulus Rift:



Or Mind-Control device like Epoc Emotiv:

All this both projects works already with Unity3D Engine, functions are ready to use!

Can you imagine a next-level game with Wide stereoscopic 3D VR view or mind-controlled ships or whole fleet, and maybe combine both of these ideas with movement Kinect detection?

3.2.3 The 3D Engine

We will use an existing 3D engine to develop Mankind-Worlds for some reasons, most important are :

- We do not have the time to start an engine from the start.
- Existing technologies could fit perfectly
- Strong C++ / Maths / Physics skills are needed to start a core.

The two possible choices for the engine are:

I-Novae Engine

http://www.inovaestudios.com/

Actually in development by the creator of <u>Infinity Universe</u> game (not released yet), <u>Flavien Brebion</u>, and another developer named <u>Keith Newton</u>. This choice is actually the preferred answer for our needs.

The engine permit to use great technologies like procedural generation, some terrains noises (like <u>perlin</u>) or complex shaders.

You can notice than the player select a star in the start of the video, meaning that all white points drawing the space background are real suns or planets where we can travel to; note also that every solar systems works like real ones, planets turning around the sun, and moons around planets in a defined time.

Representing the largest breakthrough in game technology in over a decade the *I-Novae Engine* is capable of displaying environments on any scale. With an advanced level of detail system the transition from the surface of a celestial body to outer space is handled in seamless real-time. Utilizing procedural algorithms, leveraging satellite generated geospatial data, or combining both the only boundary is your imagination





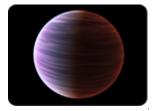




Cutting Edge Graphics

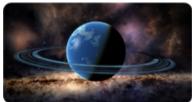
- Physically accurate atmospherics taking into account aerial perspective
- Deferred shading for rendering thousands of dynamic lights
- Realistic day/night cycles
- Indirect illumination via instant radiosity
- 128-bit HDR capable pipeline
- God rays, motion blur, depth of field, and other advanced post-processing effects
- Stereoscopic 3D

- Multi-monitor support
- Intelligent streaming of textures, meshes, sounds, and other resources









Unprecedented Scale

- Terrain engine with an LOD system capable of handling entire galaxies
- Procedural generation of planets, planetary rings, solar systems, galaxies, volumetric nebulae, and more
- Capable of integrating pre-existing heightmap, GIS, or equivalent geospatial data into terrain generation
- Orbital physics

Hard code already did

- Written in C++ with C bindings
- Modular design only use the components you need
- Integrated scripting solution built on .NET/Mono
- Memory manager with leak detection
- Robust debugging with stack tracing and crash dump generation
- Fully multi-threaded
- Procedural noise library optimized with SSE2
- Advanced image processing
- Localization
- 3D math library in both single and double precision

Another interesting video about space generated procedurally with an algorithm to show an entire galaxy, with no details but only data:

Unity 3D

http://unity3d.com/

Unity 3D is a more generic engine made for many games genres. It also permit to use advanced technicals like the ones explained above (procedural generation for example) but is not typically designed for that use, but everything is possible.

That's why it is not a perfect choice but could be an answer if there is problems with I-Novae releasing.

Unity 3D permit to use some ergonomics interface we talked about in this page.

Unity is a game development ecosystem: a powerful rendering engine fully integrated with a complete set of intuitive tools and rapid workflows to create interactive 3D content; easy multiplatform publishing; thousands of quality, ready-made assets in the Asset Store and a knowledge-sharing very big Community.

For independent developers and studios, Unity's democratizing ecosystem smashes the time and cost barriers to creating uniquely beautiful games. They are using Unity to build a livelihood doing what they love: creating games that hook and delight players on any platform.



Workflow

Rapidly assemble your scenes in an intuitive, extensible Editor workspace. Play, test and edit for fast iteration towards your finished game. <u>Learn more</u>



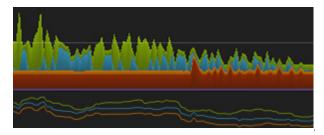
Quality

Create a game with AAA visual fidelity, audio and full-throttle action that performs smooth and clean on any screen. <u>Learn more</u>



Mecanim

Unity's uniquely powerful and flexible animation system brings any character or object to life with incredibly natural and fluid movement. <u>Learn more</u>



Performance

Reliable performance, smooth framerate, and superb game play experiences across target platforms. <u>Learn more</u>



Multiplatform

No other game engine gives you the choice of 10 publishing platforms for your game with near-effortless deployment. <u>Learn more</u>



Collaboration

Full version control for all game assets; instantly grab changes from other team members, and extend Unity for generic VCS support. <u>Learn more</u>

3.2.4 Database

We will surely use Oracle DB, which is a must-have choice for huge databases.

3.2.x Resources

Infinity Universe

Main Site: http://www.infinity-universe.com/

Keith Newton Twitter: https://twitter.com/inovae_keith

Flavien Brebion Old Game Dev Journal: http://www.gamedev.net/blog/73-journal-of-ysaneya/

Infinity Universe Videos: Videos Link

Unity 3D

Main Site: http://unity3d.com/

Some Forum Posts:

- http://forum.unity3d.com/threads/85049-Need-help-for-Procedural-Generation-of-a-Galaxy-Planets-Terrain
- http://forum.unity3d.com/threads/85879-Project-Question-Unity-and-Terragen-Procedurally-Generated-an-d-data-stored-in-SQL
- http://forum.unity3d.com/threads/85914-Terragen-2-Assets-Integration
- http://forum.unity3d.com/threads/37712-A-realistic-huge-and-open-space-environment

Procedural Planets: http://answers.unity3d.com/questions/49292/procedural-planets.html

Ceslestial Unity Demo (install Unity Web Player): http://www.wow-zen.com/celestial/index.html

Entity Crisis Blog: http://entitycrisis.blogspot.fr/

Procedural Generated Galaxy: http://answers.unity3d.com/questions/56964/procedural-generated-galaxy.html

Etherea for Unity3D or C#: http://www.etereo.com.br/

Epoc Emotiv Headset (with Unity Dev Tools) : http://www.emotiv.com and <a href="http://w

lications/135/4021 - pdf here: http://www.emotiv.com/upload/manual/sdk/EPOCSpecifications.pdf

Oculus Rift: http://www.oculusvr.com/

More infos is needed to use with Unity or building functions to another engine... (Oculus and Emotiv)

Engine Development

Space Simulator: http://www.spacesimulator.net/

Wikipedia

Mankind: http://en.wikipedia.org/wiki/Mankind %28video game%29

Level of Detail: http://en.wikipedia.org/wiki/Level of detail

Procedural Generation: http://en.wikipedia.org/wiki/Procedural generation

GameDev

Main Website : http://www.gamedev.net/

Atmospheric Scattering Article: http://www.gamedev.net/page/resources/ /technical/graphics-programming-and _theory/real-time-atmospheric-scattering-r2093

Gamasutra

Main Website: http://www.gamasutra.com

Procedural Articles:

- Article 1 :http://www.gamasutra.com/view/feature/3098/a realtime procedural universe .php
- Article 2 : http://www.gamasutra.com/view/feature/3042/a realtime procedural universe .php
- Article 3: http://www.gamasutra.com/view/feature/2984/a_realtime_procedural_universe_.php

Algorithms for an Infinite Universe : http://www.gamasutra.com/view/feature/3377/algorithms for a high result of the state of the state

Kickstarter Interesting Projects

Oculus Rift: http://www.kickstarter.com/projects/1523379957/oculus-rift-step-into-the-game?ref=most-funded

Star Citizen: http://www.kickstarter.com/projects/cig/star-citizen?ref=category

Elite Dangerous: http://www.kickstarter.com/projects/1461411552/elite-dangerous?ref=category

Planetary Annihilation: http://www.kickstarter.com/projects/659943965/planetary-annihilation-a-next-generation-rts?ref=category

Limit Theory : http://www.kickstarter.com/projects/joshparnell/limit-theory-an-infinite-procedural-space-game?ref =category

Books

Texturing and Modeling -> A Procedural Approach : http://www.amazon.co.uk/Texturing-Modeling-Procedural-Approach-Kaufmann/dp/1558608486

Various Games for Ideas

Sins of a Solar Empire: http://www.sinsofasolarempire.com/ and Video Link

EvE Online : http://www.eveonline.com/

Battlestar Galactica (made with Unity 3D): http://fr.battlestar-galactica.bigpoint.com/?lang=en

Beyond Protocol : http://www.beyondprotocol.org/

OGame: http://www.ogame.us

JumpGate Evolution (closed): http://en.wikipedia.org/wiki/Jumpgate Evolution

Infinity Universe : http://www.infinity-universe.com/

Evochron Mercenary : http://www.starwraith.com/evochronmercenary/

SWTOR: http://www.swtor.com/

Anarchy Online: http://www.anarchy-online.com

Elite License: http://en.wikipedia.org/wiki/Elite %28video game%29

InterStellar Marines : http://www.interstellarmarines.com/

Homeworld 1 & 2 (closed): http://en.wikipedia.org/wiki/Homeworld

Miscellaneous

David Robinson Blog : http://www.cheshirequark.org/?p=145&cpage=1#comment-40

Freedom-Star Prototype Procedural Galaxy and Planets: Video Link

SpaceEngine.Org Website: http://spaceengine.org/index/video/0-7

SpoNeil Website : http://sponeil.net/

Procedural Generation of a Galaxy: http://stackoverflow.com/questions/348321/mathematical-question-procedu

ral-generation-of-a-galaxy

dmytry website : http://dmytry.com/galaxy/index.html

Atmospheric Scattering Video : Video Link

Terrain and Atmosphere Rendering Algorithms: http://evasion.inrialpes.fr/~Eric.Bruneton/demo.html

In Video

3.3 Roadmap



This page will be modified in time according the roadmap needs.

Step 1 : Create Technical, Concepts and Financial Project document.

Step 2 : Goal is to define a working demo / and video to show the project to possible investors.