

# BACKGROUND REPORT: PERPETUUM

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**zine**  
BEHIND THE SCENE

Groups like Conspiracy belong to the best amongst the demo-scene. Their productions crammed into 64 kilobytes are milestones. For the last five years, Conspiracy, along with like-minded individuals, have worked on a game named Perpetuum under the company name Avatar Creations. ZINE talked to BoyC about the wild ride the team has experienced so far, with the game about to reach the public beta phase.

## I THINK MOST OF US HAD A LAPSE IN FAITH AT ONE TIME OR ANOTHER

Perpetuum is a science-fiction Massively Multiplayer Online Role-Playing Game (MMORPG), a game that can be played by thousands of players online. While most competitors create games that run multiple parallel servers, Perpetuum consists of one, single universe.



The project started around five years ago when Crm/Absolute! moved back home to Hungary and contacted a few sceners about creating a client for an online game system he had in mind. Development picked up about 2-3 years ago when the team started working on the game full-time with an enthusiastic crew.

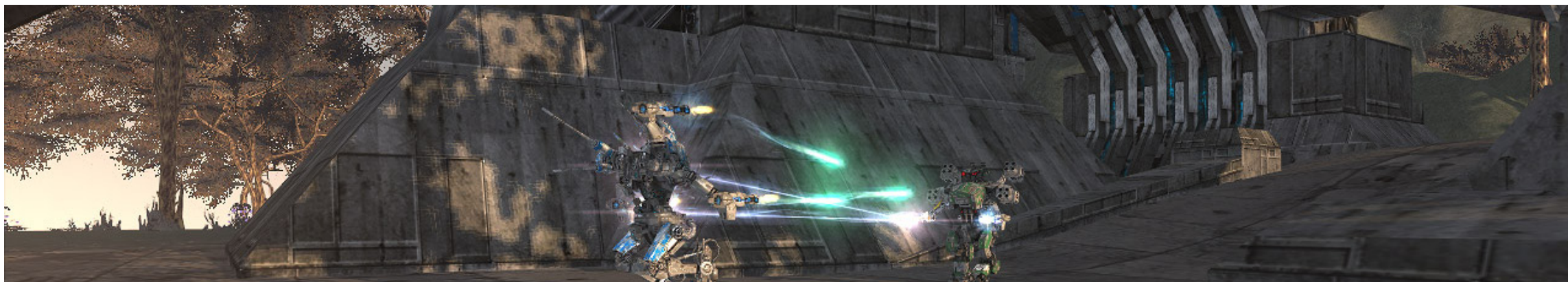
The story of the game: In the not-too-distant future, a strange anomaly opens the gates of the universe for humans. With this new technology, energy, information, and atomic size objects can be transported to anywhere in space. The most intriguing of all new discoveries is an Earth-like planet, where humanity discovers a new source of energy, vital to its unbroken advancement. However, this planet is inhabited by a synthetic,



robot-like life form. Their technology and resources are the goal of humanity's new conquest. Players may take part in various areas of the project. They may fight on the front lines for new territories, develop the already established infrastructure, trade goods or services, or even set their own goals and set up their own corporations.

The decision of what game to make was a gradual process based on the team's capabilities and the things it learned along the way. "At first we aimed for a generic game system and later, as ideas got stacked on top of each other, we slowly narrowed the idea down to a single game," explains BoyC of Conspiracy, one of the crews that are now working within the company Avatar Creations. "The point was to create our own virtual world with its own rules." Over time, the game became more and

more complex. "The idea we started off with was a lot less ambitious. We wanted a small online game system that could be skinned for various projects. As we worked on the engine and implemented the features we realized that we also needed to



create a game with it, and after a while the development focus turned from the engine to the game."

Switching from 64 kilobyte-productions to a MMORPG seems to be a giant challenge. "Oh yes it was, but it's a great ride and we love it," confirms BoyC. "The Conspiracy guys dived into 64k's for the challenge. This can be seen as a (big) step up from there."

The main features of the game are the persistent universe, the formable planet surface, dynamically changing vegetation, time-based character development, active raw material simulation, real-time asynchronous combat, more than 30 different robots, hundreds of equipment items, a self-controlling economy, social networks, and a career center where the missions can be undertaken. That's a whole lot of work.

The crew started with the technical basics: client-server communication protocols, a user interface system, and a very basic world representation. After a few hundred thousand small incremental updates, Avatar



Creations got to the current game. “First we needed a basic display of the world so we could see what we’re doing,” explains BoyC. “After that we set up content tools and web interfaces for the server side tools. Movement on the terrain was a huge step, just like the combat, guild, market, ingame chat, crafting, and the skill systems. On the client side, we created our own 3d engine and pipeline from scratch, not to mention the sound system and the audio/visual content. We also had a few big rewrites. The server was completely rewritten from scratch twice (although one of these was at the very beginning).”

With such great ambitions it is unavoidable that thoughts like “ok, let’s forget this, we’ve underestimated everything” come up every now and then. “I think most of us had

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a lapse in faith at one time or another but never at the same time, so the team pulled through,” admits BoyC. “There were a lot of seemingly impossible problems which we worked around only to come back to the same problem two years later and say ‘oh, that can be done easily like that’. Giving up this close to what we’re working towards simply isn’t an option so we ap-



proach every problem we face with this attitude. It either works or we find a way for it to work. The biggest obstacle in general was probably to create a game that is acceptable in 2010 with a team so small.”



But now the time has come where the team can reap the rewards of its efforts. What is the feature that BoyC is most proud

of? “Basically everything can dynamically be changed in the world,” he explains. “It’ll truly be a sandbox game: you’ll even be able to shape the terrain, raise settlements with complex infrastructure or plant and/or destroy vegetation.”

The company is also cautious when it comes to the launch of the game, in order to ensure that it doesn’t grow too fast. “We’ll of course need new people once the game launches,” explains BoyC. “We’re going for a slow launch so we can keep up with the growth of both the game and the company. We’re not claiming to be experienced enough to handle a radical surge of players, or employees, so we’re being cautious.”

Coming from the demoscene, pretty much everything is different in game development, but there are some aspects that can help you during such a project. “Our demoscene background ensured that the core of the team has a similar mindset,” agrees BoyC. “Also the fact that we’ve worked together before helped a lot. We had guys come and go on the project - the people who stuck were the ones with the scener way of thinking.”

Perpetuum is currently in closed-beta stage and will move towards a public beta shortly. To find out more about the game, you can visit [www.perpetuum-online.com](http://www.perpetuum-online.com).