Expansion Designdocument

No mans land

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Contents

Chapter 1

Introduction

Simulation of a multiplayer solar system wide economy. The goal is to inspire cooperation in all players.

This projects server side will be developed in rust as an exercise and get back into programming shape. And because rust makes fun to develope in. I hope there will be someone interested in the client side :).

Chapter 2

Story

2.1 Start

You start from earth with minimum volatiles, a small space ship and some building and living basics. Your first goal will be to establish an outpost in the astroid belt between Mars and Jupiter. First survive, then try to find out what others need and specialise for this?

After that there will be system wide challenges where you can participate and you may also expand your outpost. When you have enough material to grow you also may try to build new colonies or probably ships to mine resources, transport material, help others? The only problems is, the more you see of the solar system, the bigger it gets and your curiosity may get you into trouble.

Chapter 3

Project Structure

- start with an easy structure like volatiles and products in the server
- production
- research
- ships and stations
- physics
- and now the client
- rinse and repeat with all other structures

Chapter 4

Design Decisions

4.1 Client / Server

At first everything will be developed in the server section.

How to structure the client and server part:

- piston
- webclient

Exchange of status informations by json or similar protocols.

It should be possible to develop the client independent of the server, just connected by the structures which are send to the client. This will enable, in a later stage the distribution of servers (No ideas yet how to prevent cheating).

4.1.1 Protocol

The protocol needs to transport full and delta status informations for every relevant object. Performance could get an issue.

For graphicinformations we need a standard protocol for which there exists standard client and server libraries.

4.1.2 Expansion of World

4.2 Basic structures

We need decision trees, which will also be helpfull for for production and reseach trees.

4.3 Research

4.4 Production

4.4.1 Volatiles

4.4.2 Intermediates and Endproducts

4.5 Trade

4.6 Physic Simulation

4.7 Station / Ships

Appendix A

Appendix Title