Carrot Design Specification

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1 Introduction

This document is an independant design specification for Carrot roleplaying environment. Carrot could also be called “Simplified Majik” for it is strongly based on ideas around Majik 3D massively multiplayer online game, but the ideas are somewhat simplified. Carrot also could be well called as a “testing platform” for Majik 3D gaming system.

2 Basic concepts

2.1 Relationship between player and player’s character

The relationship between actual *player* and player’s *character* could be thought being as like the *player* would be the *soul* for the *character*. The *character* itself in game terms wouldn’t necessarily be aware of the *soul* controlling it. However, the *soul* would know that it controls the *character* even though ideally the *soul* would be totally concentrated on living in the *character*, experiencing and feeling through it. Thus, it is recommended that the *character* would be refered in 1st person regardless of the way the game world is viewed.

2.2 Unrestricted roleplaying

Ordinary roleplaying games stress the *player* to pick a role and stick to it, even perhaps write a background story for it further narrowing down the role. However we’ve seen that in a computer roleplaying game sticking to a prescribed role might be in fact keeping us from experiencing *real feelings* and even in some situations take away freedom for spontaneous choices that go beyond the scope of the role.

Take for example situation where you’ve decided to play a character that’s having some sort of appearancial abnormality others like to point out. You’ve decided that the character doesn’t like that and gets angry about it. So you only “play” that you are angry while in reality you may not feel like that. That’s the way of ordinary roleplaying.

In other words in an ordinary roleplaying game upon a situation you have to have to *think through the character* before acting and thus usually dismissing your own feelings. While it may be fun, it may not be necessary to *restrict* the gameplaying to only one aspect of possibilities in roleplaying.

2.3 Freedom to act on feelings

In a situation where your character’s sword has been stolen the usual thing is to feel anger. The player basically have two choices

1. decide that the character tries to play “calm” thus giving possibility for the actual *player* to control excessive anger conveniently.
2. play without a second thought and act out the anger thus letting the *player*’s anger out in an safe environment.

Hard-core roleplaying environments usually allow the character to act out anger *only* if it fits the character’s role. Carrot, even though *hard-core*, doesn’t stamp restrictions here for both of the choices are seen good in both roleplayability terms and as well as for personal growth and enjoyable experience.

2.4 Close emotional relationship

Not only being emotionally beneficial for the *player*, playing with *real feelings* instead of solely *imagined feelings* is for sure much richer and relaxing experience. Even though usage of *imagined feelings* is not in any way dismissed for they can be emotionally beneficial, too. Such situation could be for example during times when the *player* is incapable of feeling real anger.

The Carrot gaming system advocates close emotional relationship between player's *character* and the *player* without closing out *any* way of handling feelings or imply any certain direction.

For further emphasizing close relationship, the visual representation of the game should try to behave like a good book, making the player forget real life surroundings and make the player *live the character*. This of course as far as reasonable.

2.5 Unforced roleplaying

The Carrot gaming system does not require *playing a role* but believes that roleplaying happens *automatically*. The player is free to choose how to *roleplay* but we believe that even without deliberately choosing to *roleplay* the character's behavior will be very realistic and fitting to the theme. For example,

- a character that has trained a bit fighting skills for sure will be seen as *the fighter* in midst of non-fighters and in ordinary case the character's player will make the character further emphasize the character's skills.
- the character that has been granted a position of *Captain of Guard* will behave like a *Captain* not only because of social pressure and fear of losing the position, but simply because the player for sure will use some of the special privileges as granted by the position, such as actually *giving commands*.

In conclusion, most of the roleplaying will happen through the will of the player as well as the social pressure imposed by other players of the community. There is no need for a special rule stating that everyone must *deliberately* roleplay. The only rules that must be kept are described in section 7.

2.6 Filling unfavorable positions

There is also no need to fear that the game will be filled with only roles that are most efficient for character's development, following only choices as made by the *player*, that "stupid" choices would not happen.

Even if it wouldn't be you, there will always be players who want to deliberately be evil and cause harm. Causing harm to others will obviously backfire, but some, even could be say that majority of players want to feel *fear*, innocent or not. *The players, individually always diverse, will strive for feelings they want to experience*. Some players will solely hunt for power, but not all will be like that for the game is not solely *power hunting game*. Hunting for power is only one possible aspect of the game.

3 Building an enjoyable roleplaying environment

3.1 Initial population

As we strive for least amount of rules as possible it is up to the first players to steer the course of the environment to be usable for good roleplaying. This basically may involve *selecting* the first players. The initial players should punish players behaving badly by not accepting them to their little community and reward with respect and acceptance those who behave well.

The ideal would be that players would adapt to the environment even if they don't read the guidelines of the environment when they apply for an account. In case they don't, they basically have to build their own rebel community that for sure will be disrespected. In most cases they will simply go away for they aren't accepted to the major societies.

4 The setting

Players will start small, unexperienced and unskilled. Out of equipment, roof over head, friends or money. It is their choice how they will proceed after that point. *Everything is permitted but not everyone like your every choice.* It is all the player's choice will the player's character become liked or disliked, powerful or laughable, wise or stupid or whether to provide challenges for the character, such as clearing reputation after doing something seriously stupid.

The idea is to provide a *playground* for players to toy with real feelings in an safe environment involving social and diplomatical matters or intrigue of a medieval-fantasy community while facing various challenges as imposed upon or given to the character by other players or by own behavior. Striving for successful roles or powerful positions, respected or not, come after basic things are secured, such as food, which may not be at all a matter of course.

One of the major elements of the game are social implications of *player built* communities and the character's *personal relation* to the community in question. These communities as well as the whole *playground* grows during the time and change as the players themselves change. Striving for least amount of artificial components such as non-player characters give greatest freedom for collective of players to build the playground exactly how they want it.

5 Things needed

For Carrot stands for simplified version of Majik 3D it is important that the point is stressed and the game is built on a system that is minimum for Majik's general ideas to work in practice. Carrot stands for *most Majik with least work!* Not only because minimizing work means getting game out faster, it also helps to keep the design simple. As a bonus it goes well with the basic concepts described in previous sections, giving greatest freedom for players.

Carrot prefers modifying *laws of nature* over adding *hard-coded features* or *rules that must be kept*. That stands as a key design principle.

5.1 Basic server functionality

The server should be able to support well around 100 simultaneous players. Carrot is designed in a way that it is not dependant on large amount of simultaneous players. The server should also be able to store the state of every object whenever and completely.

5.2 Gridmap engine

The tile size should be x. Thus describe traveling time estimates.

5.2.1 Attaching and detaching modules

The gridmap engine should support attaching and detaching of *player built* modules. Each of these modules always take *one grid* of space. The players should be able to build at least following simple modules:

- A wall module of various materials.
- A *lockable* door module of various materials.
- A *drinkable* well module.

5.2.2 Attaching and detaching items to modules

The gridmap engine should also support attaching *player built* items, such as *signs*, to all of the modules.

5.3 Material system

In order to have freedom to choose between low quality but cheap and high quality but expensive, we have to have a simple material system. Having materials also open way for professions such as *miners*, *wood cutters*, *hunters* and *extraordinary material seekers*. However, Carrot does not need to support all and every material, but just enough for having enough diversity for the professions and freedom to choice to be possible. These materials are described in Table 1. Along with the materials listed animal skins also have to be supported. These are listed Animals section that doesn't yet exist.

Name	Type	Description
iron	metal	ordinary metal
majikium	metal	semi-exceptional metal
mithril	metal	exceptional metal
oak	wood	ordinary wood
granite	rock	ordinary rock
crystal	rock	exceptional rock

Table 1: Minimum required materials

The materials have following variables: weight/cm2, physical sturdiness and possibly melting/burning point that are to be added to the Table 1. The materials, once mined, have to be *refined*, opening way for *refiner* profession. For example in a piece of majikium might be only 10% real majikium. All metals are meltable and thus reusable, opening way for *melter* profession. A small percent is always lost when refining, melting or working with material depending on the skill of the worker.

5.4 Monetary system

The characters need some way of convenient exchange system for trading to work well. One single exchange system will not be forced with a couple of suitable metals it is very likely that people will begin to use them as item of exchange.

Even though exchanging pieces of raw material is all possible, not everyone want to carry their own weight measuring scales with them. Thus, the smithes should be able to create *coins*. These coins with standard sizes can be thus calculated in quantity not in grams. Having to prepare an suitable item out of raw material also opens position for *coin maker* profession.

Unlike in ordinary computer roleplaying games, as there is no *non-player characers*, there is no need to set prices for items. The prices will be solely handled by players themselves and that, in a long run, will balance around rule of *supply and demand*.

5.5 Item system

- keys
- containers (canteen, bag, mug, barrel)
- light sources (torch)
- writable items (bulletin board, paper, sign) – no pen needed for convenience
- items for calculating weight
- engraver's stamp for quick engraving of recurring engravings (coin engraving, etc.)
- tools
- weapons
- armours

5.5.1 Item engraving & labeling

Although not absolutely necessary, it is very beneficial for the communities if people could *engrave markings* to items and name them. Thus could exist items with a mark of their owner or items with a special name for estimating quality and origin of items. In order to avoid engraving just anything to any items, we need to cheat here a bit,

1. items can not be further engraved after *cooling down*.
2. stamps can not be faked. Once creating *engraver's stamp* item with special engraving, the engraving is stored and not another stamp with exactly same engraving can be made. The stamps can only be *copied* if getting a copy. Thus it would be possible to *license* certain people for doing certain items, such as *coins*. If stolen, fake items may come.

Item short descriptions will show only generic information about the items. Thus, it is necessary to be able to *show* item long descriptions for other players without giving the actual item. This long description would also tell of stamps and engravings. Generic short description will only show *material* and *item type* such as "an iron sword" with

possible visible magical enchancements. The item can be labeled for personal use and refering, for it would be otherwise possibly very inconvenient to find a certain item from inventory.

Through magical means or *compare* skill people could find out all the properties of the item. Comparing requires another item (preferably of same type) to be compared against.

5.5.2 Item creation & copying

If a smith has an item, the smith can attempt to make a copy of it. The complexity of item is checked against smith's smithing skill. If different material is used, complexity is further increased. When working with item the smith gains skill for the item type in question and may not need a sample copy in future. In the beginning selected persons may be granted with knowledge of items.

6 The game

6.1 Open times & time-related issues

The game is open fixed times in order to solve

- problem of addicted players disturbing the game tune by over-doing stuff, making it harder for regular players to achieve anything significant.
- problem of times when there are not enough players to fill important roles in the game such as *innkeeper* and *guard*.
- problem of cities attacked during time when city would be empty simply because the players would be sleeping in real life.

In the beginning the game would be open only for few hours and it would be expanded during time.

If in future separate opening times are opened for people from other major time zones arises a problem that people could attack an empty city. This can be solved by dividing the world to two separate zones.

When other is "wake" the other is "sleeping". When the zone is "sleeping" nothing moves there, the clock doesn't move forward. If a player has location in "sleeping" zone the player can't log in to game during the time.

Only during special time a portal between these is opened and people can move between the zones. In future when the game is popular and opening times are long, there could be few hours or even more of "shared" time when both of the zones are "wake" and possibly very valuable trading can take place.

In future with thousands of player all these open time restrictions could be removed, but not before that if we are not ready to face the problems.

6.2 Offline mode

One significant unavoidable problem is present: The player may lose the link *any* time for *variable* length and that length can be from one second to *weeks*! It would be extremely unfair to allow *any* harm to the player character during such an occasion. The

player who has lost the link should be able to keep position and all the equipment and wake up unharmed when coming back.

The player who loses link shouldn't just disappear without notice. It should make a notice to everyone in vicinity that the player in question lost his link. The player can't leave a "statue" or otherwise the world would be full of statues in a while. Having the statue just for a while isn't worth it.

7 Unavoidable rules that must be kept

- Players shall *never* willingly cause their link to drop when playing the game.

8 Unavoidable realism problems

- We must inform if some player loses link. See Section 6.2.

9 Open questions

9.1 Gridmap tile size and travel speed

We have to decide tile size and travel speed for gridmap.

9.2 Area naming

Do we need area naming if we can have signs? See Section 5.2.

9.3 Tool usability

How to solve tool usability. The ideal would be that you could use rock instead of hammer for doing hammering, but with worse results. The ideal would be that people would be able to build items such as axes using only nature's components. Two proposals for solving the problem are described in Appendix A and B.

9.4 Player quiting

What happens when player quits before the open game time ends?

A Explicit tool usability proposal

Items are arranged in inheritance tree. Each inheritance item is assigned explicit penalty points for all of the activities. If no points are assigned, it is interpreted as that you can't use the tool for the activity in question.

For example for rock:

```
set_usability(WOODCUTTING, -20);
set_usability(ROCKCUTTING, -15);
set_usability(ROCKSHAPING, -10);
```

Thus, people could also smith their items trying to give bonus usability for certain task, thus creating items such as "woodcutter's axe".

A.1 Problems

The problem here is that the number of usability items such as `WOODCUTTING` may grow to unreasonable amounts and we would need to add *sharpness* etc. anyways for example for weapons.

B Variable-based tool usability proposal

Activities that are best to do with tools:

- woodcutting, rockcutting (hands, rock, any sharp-item, axe) needs average cutting blade with weight.
- rockshaping, fine wood-working (another rock, any sharp-item, knife) needs short fine cutting blade without weight.
- converting wood logs to wood boards (hands, rock, knife, axe, sword, saw) needs long fine cutting blade without weight.
- skinning, meat preparation (hands, knife) needs short fine cutting blade without weight.
- wood-board based building, shaping hot iron (hands, rock, hammer) needs short precise but unsharp bludgeon with average weight.
- digging (hands, rock, stick, shovel) needs sturdier than ground large and flat item.

Variables seen:

- blade (non-existant, short, average, long)
- sharpness (non-existant, low, medium, high)
- precision (non-existant, low, medium, high)
- weight
- sturdiness
- size

For example see Table 2. Lowest number means “non-existant” and highest means “high”, “long” or whatever applicable.

name	blade	sharpness	precision	weight	sturdiness	size
hand	1	0	2	0	0	small, flat
metal glove in hand	1	0	0	1	2	small, flat

Table 2: Example item properties

Activity requirements goes like taking optimal setting such as “blade: short” and then calculating the distance from optimal setting. Work would go finely if all are optimal thus 0 penalty points. If blade would be “medium” one penalty point would be added. If some tool needs some setting very much then a factor can be added. So that if the optimal setting is not matched, 5 penalty points is added or something.

In addition doing work such as hammering with a heavy hammer will naturally take more endurance and thus switching to normal hammer would be a wise decision.

Sturdiness adds to life time of the tool. Low sturdiness item will simply get worse in quality and when low enough, it will break to pieces. Sturdiness is checked against

the material being worked and if failed, the tool will suffer hit point loss. If tool is “hand” then the hit point loss is added to player’s hand, hurting the player.

Variables such as “sharpness”, “precision” and “sturdiness” may be “exceptional” and thus *decreasing* penalty points. If penalty points goes below zero it means the user gets bonus points.

Magical enhancements may further enhance the overall item by giving bonus points.