Purdue Virtual Reality Club

"SciFi Scenario"

Game Design Document

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1) Game Design

a) Target Audience

At this point, the Oculus Rift or other similar products have yet to really penetrate the market. As such, most of the users of the Oculus are going to not be owners of an Oculus themselves, but rather people trying it out either from a friend, or as part of a demo at something like a tradeshow. These people aren't likely to have a lot of time to play the game, so a game with a long play through with low replay-ability doesn't make sense.

b) Game Strategy

Most video games in today's market can be categorized in a number of different ways. In terms of game content, most games would fall into the categories of either:

- Historical (Reenactments, Fantasy, RPG, etc)

- Modern (FPS Combat, Simulation, Racing, Sports, etc)

- Futuristic (SciFi, Simulation, FPS Combat, etc)

If we were to make some form of a fantasy game, we'd probably have to deal with a handful of different races, rendering magic elements, lots of varied textures (wood, stone, metal, skin, etc). All of these would make for a difficult game to make in terms of assets, the programming would be pretty typical of a lot of games.

With games based in the present, there is a strong push for realism and accuracy, which can be a burden in of itself. If you don't go for realism, then picking and

implementing a nonrealistic art style could be hard. There might also be a higher

expectation for interaction with other characters, which would pose a higher level of

difficulty in both terms of development and assets.

With SciFi games, you're not necessarily bound to making things realistic, you've

got more freedom with art style. Assets are going to be pretty straight forward, lots of

hard edges simple models, simple textures including a lot of metals, plastics, etc.

So basically, if we are going for the EASIEST possible game to make:

- SciFi Themed

- Short playthrough, but with high-replayability (rouge-like, that a bit deadly)

- Limit to single race, otherwise it will MASSIVELY increase the amount of work

- If you do HAVE to have multiple races, leave it until later in the development cycle

2) Game Summary

a) Setting – 2285AD – Second Great Industrial Age

The game, at least initially, will take place on the Murphy Asteroid Mining Facility

located on a 12km asteroid in the Kuiper Belt, rich in iron and nickel, located

approximately 42AU from Earth. The Facility is owned and operated by the Valkyrie

Resource Procurement (VRP) Corporation, headquartered on Earth. The Murphy AMF is

one of many such facilities located in in the Kuiper Belt, in orbit near the dwarf planet

Varuna. Gravity on asteroid 2250OP42 is minimal, so the Murphy AMF, like other such

facilities is equipped with artificial gravity generators. If emergency power fails, gravity

within the facility will be negligible. The facility consists of mining operations, refining

operations, power generation, some deep space research labs, docking facilities for

small, medium and large ships to facilitate import and export of materials, and all such

facilities needed to support the lives and happiness of the staff of the AMF.

b) Prologue

The main character, _____, has been an employee of VRP for 8 years. During

which time you have served on several different AMFs, in a variety of different

functions. For the past 4 years though, your duty partner has been _____,

you get along well together, and he's always looking out for you. The facility is in the

middle of an annual retooling for the mining operations, so it is only minimally staffed.

During the retooling operations though, there was an accident, a primary fuel

distribution line was hit by some heavy equipment causing a chain reaction of

explosions throughout the facility. During the emergency evacuation of the facility, you

and _____ made for the auxiliary docking hangar. _____ boarded your

long distance transport for pre-flight, while you entered the hangar control room to

initiate the auto-launch cycle for the hangar. You initiate the countdown to decompress

the hangar and open the doors, just as you are heading to the transport, a series of

explosions rip through the section of the station, knocking you against the wall of the

control room as you slump into unconsciousness.

3) List of Possible Scenarios

a) Medbay

b) Reactor

c) Hydroponics – Kitchens?

d) Living Quarters

e) Primary Hangar – Air Leak, Debris, etc

f) Dry Storage

g) Cold Storage

h) Industrial Storage

i) Mining – Robotics Control?

j) Refinery

k) Computer Core

l) Deep Space Research Lab

m) Maintenance

n) Bathrooms

o) Fuel Storage

p) Recreational Facilities

q) Docking Hub – Air Locks

r) Escape Pods

s) Brig

t) Armory

4) Global Game Elements & Mechanics

a) Health & Energy

b) Tools & Equipment

c) Hazards – Radiation, Explosion, Fire Electrical, Vacuum

5) Deployment Breakdown

a) Deployment 1

i) Storyline

The Game opens with you lying on the floor of the control room, slumped against the wall, you are mostly unharmed, but you feel a bit disoriented and ears ringing. There are some blown panels in the room still throwing occasional sparks. As you lift yourself to your feed, the Comms station on your right pops and fuzzes into a voice calling your name repeatedly. "Hey! Over here! Are you ok? Can you see me?" This continues (increasing in irritation) until you make your way over to the Comms station. When you move in front of the station "Hey, there you are. Looks like you made it through that blast without too much injury." (If you look away from the screen for too long, he yells "HEY! FOCUS, this is serious!") He continues "Somethings wrong, I'm not getting any audio from your channel, so don't bother trying to speak, can't hear you anyway. Ok, the secondary explosions seem to have died down a bit now, but we NEED TO GET OUT OF HERE SOON! No telling when the main fuel tanks or the reactor blows and we get taken out in the blast. I made it into the transport before that last explosion. Good news is that the Transport seems to have made it through undamaged, but that's the good news. Bad news, you initiated the hangar launch cycle before you got knocked out, so the bay is depressurized, and one of the secondary explosions seems to have cut power to the launch bay doors, it's stuck part way open, I can't fit the Transport out. WE NEED TO

GET OUT OF HERE, and I can't do anything from in here. I need you to get the Hangar door closed so we can depressurize the bay, get you in here, and get the heck out of here. Think you can do all that? **(Either waits briefly, or waits for you to nod)** Good! Let's get moving."

(1) Objective: Access the hangar controls to close the doors. "Ok head on over to the Tower Controls on your left and get that door closed." **(you go over, but the panel is black and scorched)** "C'mon what's taking so long? I'm gonna jack into your suit cam and comms so I can see what you see." **(tells you to face the panel if you aren't already)** "Oh crap, that's not good. You're going to have to access the hangar systems directly. Make your way out into the hallway, and downstairs to the hangar door system." **(You go out through the door, into a hallway with several doors and stairs down a floor. You go downstairs and find a door under the control room labeled "Hangar Support Systems." You enter and work your way past a series of machinery, some of it sparking or moving (hazards?). Your partner is guiding you all the way. You make it to the far side of the room where you can see a large motor and the mechanism to open the hangar doors. He walks you through the procedure to close the hangar doors. Once it starts moving)**

(2) Objective: "Ok, quick get back up to the control room and repressurize the bay" **(you make your way back up to the control room and access the Hangar controls. You see air venting into the room via air vents in the walls.)**

(3) Objective: "Get back down to the door controls and let's get out of here!" **(you**

make your way down to the controls) "Ok, once you hit the door opening

controls, you'll have 30 seconds before the hangar starts to automatically

depressurize. Then another 1 minute to get to the ship before the room is

vacuum and the door opens, so you better hurry!" **(you hit the button, then race**

for the transport ship. Multiple ways to die at this point.)

ii) Asset list

(1) Hangar

(2) Control Room

(3) Basic Tile Set

(4) Stairs

(5) 'Clutter objects'

(6) Transport ship

(7) Machinery room

iii) Critical Program Features

(1) Interface & Menus

(2) Computer Interface Interaction (bypass?)

(3) Display to computer screen

(4) Lighting control

(5) Effects (Air vents, fire, sparks & arcs)

(6) Headlamp/flashlight

iv) Non-Critical Program Features

(1) Tools

(2) Weapon & Ammo

(3) Inventory

(4) Pick up / Drop Items

(5) Use items (Medkit

(6) Procedural Map Generation