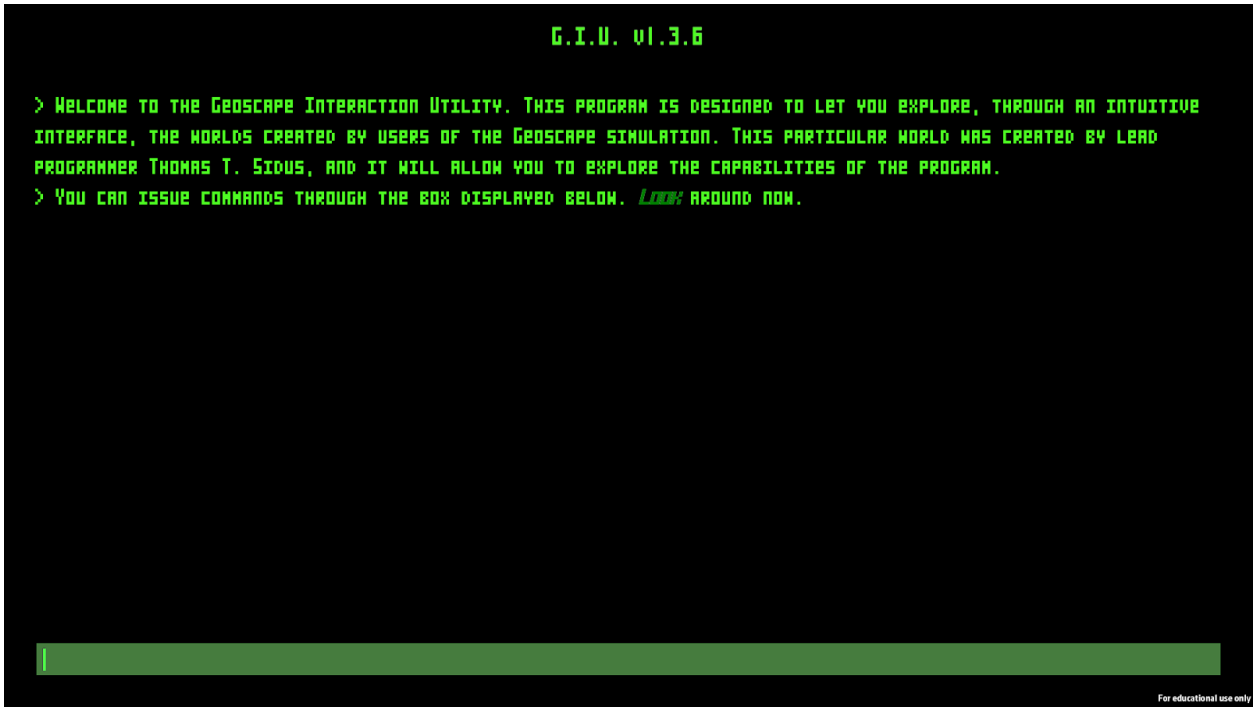
Geoscape

Game Design Document



1.0.0 Alpha / 5/3/18

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Game Concepts

High Concept Statement (Harrison)

You are a survivor. For three weeks, now, the world has been empty. There are people, yes, but not one of them moves. They're all asleep, living an impossible non-death at the price of their autonomy. That's why you're here, at your old office building: you *know* it was the Geoscape project that caused this. The only question is how.

Player's Role (Harrison)

Geoscape's gameplay is simple: you explore a facility in the first person, using standard WASD controls to move. Occasionally, you will come across a terminal, which will allow you to play a short text-adventure puzzle. Completing this puzzle will remove an obstruction in the 3D worldspace, allowing you to continue exploring. Throughout the game, in both the 3D and text-adventure world spaces, there will be notes left by the facility's former staff. These will slowly deliver the story to the player. The story itself will be founded on an already written short story, available here.

Main Character (Landon)

The main character themself does not have a model. As the game is in first person, the player will never actually see their avatar. It's created specifically like this for the player to feel more immersed. Instead of the player role-playing as a person in the game, they are instead the actual person in the game.

Gameplay (Ed)

The gameplay will feature two modes: a first-person, 3D exploration mode, and a text-adventure mode accessed from the 3D mode. The text-adventure portion is where most of the challenge will lie; each computer terminal the player interacts with will be a small text-adventure game. Within the 3D exploration mode, the player will be able to interact with and listen to recordings that will deliver the narrative.

Interaction Model (Landon)

The Interaction model in the game is *avatar-based*. The player plays as if they are the person in the game. It's first person; The player is looking through the screen like they're looking through the avatars eyes.

Camera Model (Ed)

The game's primary camera model is first person. You will see the game world from the avatar's eyes. The camera model will stay first person the whole duration of the game, excepting only the terminal interaction sequences.

Genre (Jayce)

The genre is a story-telling exploration game with integral text-adventure sub-games. Most of the puzzles are concluded by **texting** the answers into a computer terminal. Lots of expositional dialogue telling an overall **story**.

Type of Play (Ed)

Our game is a single-player campaign style only game.

Target Audience (Harrison)

Geoscape's target audience is people over the age of 13. Its simple mechanics should make it accessible to most people, regardless of their gaming experience, gender, or disabilities. There are some caveats, however: First, the text-heavy nature of the game will make it difficult for visually impaired gamers to play. Second, this game caters to a niche, though accessible, market; it is not intended for consumption by the hardcore community. The game will be relatively short, and so it will not require a great deal of time investment.

Platform (Harrison)

Geoscape's terminal mechanic makes it viable only for PC, Mac, and Linux platforms. It will be published to Steam—even if it's not completed in class, I will see personally that it gets finished and published. The details of this will be discussed by the team.

Setting (Garrett)

The game takes place in the offices of a progressive electronics company. The player is here to solve a mystery that has left everyone else comatose.

Levels (Harrison)

Geoscape features “levels” in the form of many floors to the facility. Within each one of the facility’s floors, there are a number of computer terminals, each of which is itself a short text-adventure game. Completing these text-adventure games will allow the player access to the next physical level of the facility.

Story (Braxton Wright)

The protagonist has lost their son to an accident involving a mysterious project, called *Geoscape* by its creators. The protagonist contributed to this project--though they left the company after losing their son--and they are now exploring their old workplace. The *Geoscape* project has rendered everyone else--as far as the protagonist knows--comatose, and the only place where answers may be found is *Geocorp*. The player does not know any of this when starting the game, and this and more details are revealed to the player through our story-telling media, as discussed elsewhere in this document.

The *Geoscape* project is revealed to be a special application of Neural Analog Interfacing, a technology developed by the fictional scientist Alec Nimo as a way to communicate with and control a brain directly. It’s a simulation, a game, that draws from your mind and memories

Eventually, the player is given the opportunity to either broadcast *The Nightmare*, a corrupted version of the *Geoscape* project, through the same device that was used to broadcast the original *Geoscape* project. This incident caused the present situation, and *The Nightmare* is an “antidote” that will crash

Game World

Physical Dimension (Harrison)

The map is restricted to the building we created. Large in scale, but there are small rooms. We have no need to disguise the edge of the map, as the game is focused on the inside of the map. Our map is unbounded from the ground--that is to say, the model is floating off of the ground. This is the most important part of the game, since this is where the game's objectives take place.

Temporal Dimension (Braxton Wright)

Time is not a meaningful element of *Geoscape's* gameplay. The passage of time does not change anything in the game world. We don't need to implement a day and night cycle because the player will be in the facility the entire time.

However, time does play an important role in the story. The narrative will be delivered to the player through two mediums: the first is old recordings, made by contributors to the Geoscape project. The second is reminiscences from the player character themselves; these reflections are delivered to the player during post-level interludes.

Environmental Dimension (Harrison)

Geoscape's environment is very minimalist. This is mostly due to resource constraints; high-school students cannot make a detailed world within one semester. However, this minimalist style also serves the narrative; *Geoscape's* story is very bleak throughout, and the player is meant to feel a sensation of loneliness, as though something is missing. The colors are generally subdued, and for the latter half of the game, the visuals "glitch", giving every piece of geometry black faces and white edges.

Culturally, *Geoscape* focuses on a particular group of people that work in, and thus value, the field of new technology. Like in the real world, however, this group is not representative of the game's world at large. The country in which the story takes place, at least, is capitalist, allowing for a corporation like *Geocorp* to thrive. Elements such as the world's dominant religions and superstitions are not relevant to the story, and are thus left to the player's imagination.

Geographically, *Geoscape's* world is an alternate Earth, one in which "Neural Analog Interfacing" technology was developed in the mid-80s. Computers in this world are very primitive, by modern standards, but the human brain is beginning to fill the role of "powerful supercomputer".

Politically, the world is again very much like ours. The story itself takes place in a country that patterns itself after the United States of America; this decision was made unconsciously, as the project lead is American.

Emotional Dimension (Harrison)

Geoscape conveys a smattering of emotions, but the heaviest is that of grief and loss. The player character, as is revealed in the narrative recordings and reminiscences, has lost his son to the Geoscape simulation. This same simulation has destroyed some of his own function, too, and has doomed the world, at least to the knowledge of the protagonist, to a state of stasis.

Ethical Dimension (Harrison)

The simplicity of the game and my own views mitigate any potentially offensive content. There is no direct competition, or even direct interaction with any other character. The gameplay is very linear, and the player's only regularly-occurring choice is the choice to ignore some of the recordings that relay the narrative. Despite all this, however, there is one moral choice at the end of the game. The player can choose to bestow The Corruption on the world, freeing them from the Geoscape simulation, or they can choose to leave the situation as it is. The Corruption comes with some deleterious effects, including random, unpredictable death, but the Geoscape simulation holds a person in stasis. It is up to the player which fate humanity receives, and this changes the ending monolog.

Character Development

Character Style (Braxton Wright)

The game's character will be story-based. We will convey the character's personality and attitudes to the player through a backstory in the form of flashbacks.

Stereotypes (Harrison)

No character in the game is presented visually, so they avoid visual stereotypes. However, Alec Nimo, a prominent inventor within the game's universe, was originally Asian; this exhibits the stereotype that Asians are mechanically-minded entrepreneurs. This has been changed in the final cut to align with our voice actor's race.

Player Interest (Braxton Wright)

The avatar will intrigue and interest the player by having the mystery on how the avatar got himself into his predicament.

The avatar will encourage the player to like him by the avatar being persistent in trying to get out of his predicament.

Character Growth (Harrison)

The player character doesn't change much throughout the story, but the protagonist has undergone development in the events leading up to those of the game. This will become apparent as the player plays the game and listens to recordings; someone who was once cheerful and optimistic becomes much more worried and apprehensive, and eventually somber and reflective.

Archetypes (Harrison)

Though the characters in *Geoscape* are unusual, the unnamed protagonist resembles a Campbellian hero in most respects. The Geoscape simulation and its broken counterpart, The Corruption, both act as Campbellian shadows.

Character Sounds (Jayce)

The only sounds the character makes is the expositional dialogue and walking. The music is only one song at the end of the game when the character chooses to die or live which creates a melancholy tone. (A minor)

Character Speech (Garrett)

The protagonist's tone of voice varies throughout the game. In his recordings from before the *Geocape* incident, he exhibits a jovial tone tempered by chronic hardship. This later turns to worry by the last recording. When delivering the post-level interludes, the protagonist adopts a reflective, sad, and somber tone, and his voice also betrays elements of anxiety and fear.

Story

Actions (Jayce)

The actions that relate to the story is just basically learning about the story. So you could pick up these little voice recording boxes that contain the story within them. A lot of the game is through exploring different parts of the facility. The facility is a super diverse looking building plus some plot twists that will throw off the player from the repetition.

Type of Story (Braxton Wright; Harrison)

The story in *Geoscape* is non-linear. It is told through voice recordings and reminiscences from the past and the future respectively, and each of these will provide a small amount of lore concerning the story. It is up to the player--that being the user, and not their avatar--to piece together the story. There is a choice at the end of the game, which changes the outcome of the story, but in a technical sense it only affects one singular cutscene.

Granularity (Landon)

That Character will be guided throughout the game by Tape Recorders placed throughout the map. The Records will guide the player, tell them backstory, and help the player progress through the game.

Advancing the Plot(Garrett)

There are Player interludes in between levels that delivers expositional dialogue. There are also terminals in the game that contain their own words. Each of these worlds are made by your co workers using Geoscape technology. Every world will provide insight into the minds of the creators.

Prologue (Jayce)

The game *could* have a prologue. However, we have decided that would ruin the thrill of finding out the story throughout the rest of the game; for this reason, we will not include a prologue.

Narrative (Landon)

The character will be guided through the game through a series of Voice Recorded Tapes. These tapes will detail events that transpired before the time in which the player roams the facility. Between levels, an interlude will play. This interlude will feature a reflection on the events at hand, as told by the protagonist some time in the future.

Non-Challenge Actions (Jayce)

The player will be picking up the various voice recorded tapes; that's about it.

Scripted Conversations (Braxton Wright)

The game will not have scripted conversations. Everything will be spoken to the player through a monolog; the player will not speak to any character directly.

Story Parts (Harrison)

The story will be told in one “act”, but the exposition will come from two sources. These have been detailed elsewhere in this document, and they are found voice recordings and post-level interludes.

User Experience

Controls (Landon)

The player has many options of moving their avatar through the environment. The basic requirements for the game to be properly played are as follows: A mouse and a keyboard. The character will be able to use a series of buttons on the keyboard to move their avatar in the desired direction. For example, if the character wants to move forward, they will press and hold the “W” key. However, if the character would like to move backwards, they will press and hold the “S” key. Due to this game having an x-axis, y-axis, and z-axis, the character has the ability to move two more additional directions.

If the character would like to move in the “left” direction, they would press and hold the “A” button. In addition to this, if the player would like to move in the ”right” direction, the player will press and hold the “D” key.

Throughout the game, the character will be able to interact with certain devices that are made to develop the plot. The character will have the option to click the “E” button to active the certain devices. The character will be able to get familiar with these controls fairly easily throughout their progression through the game.

The player’s camera is inside the avatars eyes. This is known as “first person.” The character is playing as if they are the character, so they are looking through the eyes of the avatar. That being said, whatever direction the player moves their mouse, the camera of the avatar will move correspondingly.

User Interface (Landon)

The player’s User Interface will be simple. The game does not require a health bar, inventory, or items like that. The User Interface will remain simple so that the player does not feel overwhelmed at the beginning and since there is no in-game reason for a health bar or inventory bar.

The User Interface will consist of one thing. A little place marker in the middle of the screen. This will serve the player in helping them to know where to pick up certain items in the game. For example, if the player would like to pick up a flashlight, they must maneuver the place marker to overlap the flashlight then click “E” to pick it up. This is made to make picking up items more convenient for the player.

Interface Details (Harrison)

The interface is very minimal, for reasons of resource constraints. The only real menu will be the main one, used to start the game, and even this may be omitted in the final product to maintain immersion and cohesion throughout the experience. This is an approach taken by other minimalist games like ours; consider especially Not Your Mind from F-C-N Games.

As for the text-adventure terminals, they seek to mimic real-world command shells in their implementation.

Style Support (LaNdOn)

The Design and audio make-up of the game will try to a have a “mechanical” and “electronic” theme for the most part. The beginning of the game will be more “Office

space" like and "professional" so that when the player transitions to a different style, they can feel the awe of the situation.

All in all, the game will have two themes (Office-like to computer-like) and the game will transition to the other. This change is mostly visual, and the deeper levels of the facility will be "textured" anomalously, with black faces and white edges.

Creative and Expressive Play (Harrison)

The game will feature no customization. Within the game, the player will be able to interact with our mechanics--which are detailed below--in any way that they like, and this may perhaps lead to a personal play-style, especially within the text-adventure portions of the game (i.e. a player may goof off to amuse themselves, or they may approach every puzzle with serious determination). The game will not record any of this, however.

Gameplay

Types of Challenges (Harrison)

Our challenges will be mostly intellectual, and ideally will all exist within the text-adventure terminals. Common puzzles from the genre will likely be present in the final product, including most notably both formal and informal logic puzzles.

Hierarchy of Challenges (Braxton Wright)

The challenges will get progressively harder throughout the games. There should be 3 levels. The challenges for each level will be about the same but at different levels of difficulty.

The atomic challenges for the game is that you have to complete the challenges that the terminals make. We plan to make it so the player does not face more than one atomic challenge at a time. They are all independent.

The player has no choice how to approach victory. They will have to solve every terminal in the level in order to advance to the next one. However, each terminal may individually allow for more than one path to victory, though this property is not guaranteed.

Difficulty Levels (Garrett)

Ideally, this game will have a satisfying, “normal” difficulty level for an average player, requiring no specialized skills to play. However, text-adventure puzzles are difficult to design, and for this property, we may unfortunately miss our target.

Actions (Jayce)

The only actions that this game is walking and interacting with computer terminals to complete text adventure puzzles. Within the text-adventure puzzles, possible actions are specific to each game. For example, if the player encounters an animal within a puzzle, there will likely be a handler implemented if the player types “attack animal”. The accepted handlers are not explicitly told to the player, as is the convention for the genre; part of the fun lies in experimenting with the system.

Saving (Garrett)

This game will likely not feature saving. It is short, and the immersion lent to it by lacking menus entirely is valuable. However, if we deem that the game has become long enough to warrant saving, it will be implemented minimally; the only tracked statistic will be the player’s current level within the facility.

Core Mechanics

Major Mechanics (Harrison)

The only one of the five major types of mechanics that *Geoscape* will use is a progression mechanism. The player, by advancing through the facility, will progress. It is otherwise very mechanics-light, excepting those mechanics discussed later in this section.

Entities and Resources (Harrison)

Within the game’s 3D exploration mode, the player will encounter few unique entities, mostly consisting of office supplies. They will not collect any resources, but they will be able to interact with two special entities: recordings and computer terminals.

Within the game's text-adventure mode, the player will encounter many resources and entities specific to that text-adventure game. Some common entities and resources may include keys and locked doors, but these will not necessarily be omnipresent. Every game, as a specification of our custom text-adventure engine, will have a player inventory, but it will not necessarily be used in every one of them.

Entities Attributes (Harrison)

Most of the entities in the 3D exploration mode are static, the one major exception being the terminals, which hold a binary state of completion. Many of the entities in the text-adventure mode will be capable of changing or being interacted with, and these will vary wildly from game-to-game.

Entities Mechanics (Harrison)

As stated elsewhere in this document, the entities within the 3D portion of this game are very static, and the entities within the text-adventure portion are very dynamic. The former will have very few mechanics at all, and the latter will have special, individual mechanics for every instance of an object. This is common in text-adventure games (i.e. only the rusty key can open the rusty door; only the trombone can awaken the elephant).

Global Mechanics (Harrison)

The only unusual global mechanics in this game exist in the text-adventure portions. "...every entity that the player may interact with has a map of functions attached to it, a group of pieces of code, each one paired with a word. If the player types the name of an entity and one of the words corresponding to a piece of code, that piece of code will run. This simple mechanic gives us, as the game's designers, a great degree of freedom in quickly defining new, game-specific mechanics for our text-adventure terminals." -Mechanics Actions.

Are there any global mechanics in the game? What mechanic governs the way the games changes form mode to mode?

Source, Drain, and Conversion of Resources (Harrison)

The player will not carry, manage, or find any resource within the 3D portion of the game, and each text-adventure game will be its own game; it may perhaps include some resources, but these resources will have no impact outside of that game, and they will be provided and destroyed in very literal terms (i.e. "You pick up the key").

Equilibrium (Harrison)

The very linear nature of the game precludes any notion of equilibrium. With no resources or sovereign parties, apart from the player themselves, there is no system to be balanced.

Mechanics Actions (Harrison)

The game's 3D exploration portion has very standard mechanics, so I will not detail them here. The text-adventure portion, however, has some interesting ones: every entity that the player may interact with has a map of functions attached to it, a group of pieces of code, each one paired with a word. If the player types the name of an entity and one of the words corresponding to a piece of code, that piece of code will run. This simple mechanic gives us, as the game's designers, a great degree of freedom in quickly defining new, game-specific mechanics for our text-adventure terminals.

NPC Mechanics (Garrett)

There are no physical NPCs that you interact with, but there are recordings left by the employees of Geocorp.

Game Balancing

PvP or PvE (Braxton Wright & Landon)

It is a PvE game. The player will be interacting more with the environment more than anything else. There are certain items that the player can interact with that will help progress the game. The game is not a multiplayer game so there are no other players to interact with.

Relationship Among Player Options (Harrison)

The player's options are only slightly less limited in this game than they are in strict logical systems, like mathematics. Though many means of experimenting may be used to find the solution to any given puzzle, there will be very few solutions to any given puzzle. The process of experimentation and learning itself has a field of science,

and I will not pretend to be an expert in it. The player's options, limited though they are, are defined by they themselves; I have not defined all the ways in which a puzzle may be approached, only the end condition of success.

Control of Units (Landon)

The player will only have control of their own avatar. However, the avatar can interact and control certain items they find. There is no other units or mechanics the player can control.

Difficulty (Jayce)

The game difficult should probably be the same throughout the game without too many spikes. The only thing that would make the player easier to overcome challenges is the player's learning or past ability.

Feedback (Jayce)

Since the main point of the game is to tell its story, it should be pretty hard to lose; and since there are no other players there will be no reason to avoid a "runaway victory". The positive feedback of the game is just allowing the player to explore more of the map as they progress and solve puzzles.

The next puzzle is usually pretty easy to see, so the player should not feel stuck trying to find the next challenge. However, if a player is feeling stuck within a challenge, then there is not a lot to help them; this is the nature of text adventure games.

Level Design

Setting (Braxton Wright)

The gameplay happens entirely within the Geocorp facility, which exists on an alternate Earth in the mid-1980s. It is generally very angular in its design, though the later levels of the game start to introduce more modernist curvature.

Initial Conditions(Jayce)

The player doesn't start with anything and never picks anything up from there. And the starting conditions are the same throughout.

Level Layout (Braxton Wright)

The layout of the level is a series of corridors and rooms with terminals/office items in it. The freedom of movements is that you are able to move about the corridors/rooms freely except when there is a door that you have to open to proceed. He/She will experience challenges throughout the maps. He/She will be able to choose what order they can interact with the terminals in all of the maps but the maps will be in a set order.

Short-Term Goals (Jayce)

If you see a door that is closed and cannot be opened, then the goal is too open that door. The player does this by activating terminals throughout the level. Each terminal will allow the player to play a text-adventure game, and within that game, there may be one or more puzzles to solve, each of which serves as a short-term goal.

Challenges and Actions (Jayce)

“Our challenges will be mostly intellectual, and ideally will all exist within the text-adventure terminals. Common puzzles from the genre will likely be present in the final product, including most notably both formal and informal logic puzzles.” -Types of Challenges, from this document.

As for actions, these will be specific to each text-adventure game. There are a few consistent methods, however; the player may type “inventory”, “look”, or “move”, or a recognized synonym of any of those, in any given text-adventure game. They will always be met with a standardized response.

Pacing(Garrett)

We control the pacing by having terminals that will break up the walking parts and then we will have walking parts so the terminals don’t get stale. There are also interludes between the levels to break up game play as well.

Story (Braxton Wright)

One event that will contribute to the story is flashbacks. The narrative events will happen when you grab a tape recordings that was left behind by employees.

Mood (Jayce)

The mood is supposed to feel sad and desolate. There is no music throughout the game until its ending, and the whole map is generally lacking in color. This mood is also reflected in the narrative and in the general tone of the interludes, which specifically discuss topics such as family tragedies.

Schedule (Harrison)

(Structure your development so that you complete each layer before going on to the next. Plan exactly what is entailed in each layer, and which team member is going to do each component.)

Originally, our schedule was as follows:

1. **Functional Minimum**: minimal items to make something that you might call a game. You'd be embarrassed if you only got this far, but at least it'd be something.
   Intended Date of Completion: March 15
   a. Programmers port TAGjs to create SharpTAG.
   b. Story writing gets done
   c. The entire game exists in SharpTAG.
   d. Programmers create menus.

2. **Low Target**: Your target for what you want to get done--the least possible to feel sorta OK about the result.
   Intended Date of Completion: April 15
   a. Modelers, in conjunction with the world builder, successfully create a 3D Geotech facility
   b. Modelers create a detailed terminal model in Blender.
   c. Few models at this stage are truly textured.
   d. Audio Engineer writes rudimentary music
   e. Programmers successfully create first-person control scheme.
   f. Graphic designer creates cover art.

3. **Desirable Target**: This is what you're aiming for, if things go reasonably well.
   Intended Date of Completion: May 15
   a. Audio Engineer writes ambient music.
   b. Modelers and Worldbuilder create chair and desk models to populate the world
   c. Modelers create a door model
   d. Programmers successfully implement a system to modify the 3D world from within SharpTAG.
   e. Graphic designer creates custom textures for most objects.
   f. Audio Engineer creates sound effects.
   g. Game is published to Steam this semester.

4. **High Target**: It might be possible to get this much done, if all goes extremely well.
   Intended Date of Completion: June 1
   a. Modelers and Worldbuilder create additional models to populate Geotech, including keyboards, papers, and other office supplies.
   b. Graphic designer textures every object.
   c. Audio Engineer composes more than two ambient music tracks, and maybe more melodic ones.

5. **Future Development**: Stuff that you know you can't get done this quarter, but might add later if you decide your game is cool enough to keep working on after the class is over, just for fun.
   a. A larger world--larger than the Geotech facility—is created.
   b. SharpTAG accurately reflects the latest version of TAGjs.
   c. Steam release is updated to include higher quality models and sounds.

In working on the project, we did not follow this schedule at all. It was far, far too ambitious for our capabilities. I cannot say with a surety when every point of our work was "finished', but I can say that, in its current state, our game resembles the low end of the low target. We lack many models, though we do now have the capability to make them with a relative assurance of their quality. Most of our programming isn't done, though we do have a functional, if minimal, SharpTAG. The story is slightly botched.

However, while we are deficient in many areas, we do have significant boons that I did not anticipate. The modelers, for example, have done an impressive job of modeling everyday office supplies, a task that I prescribed in the high target. Our Audio engineer arranged voice acting for some of our lines, and many of the remaining ones are slated to be recorded by his contacts shortly after the end of the school year.

We anticipate a Steam-worthy product by the end of next school year, though we have seen empirically that our estimation of required time may be inaccurate.