

CS491a Game Design Proposal

Title: Bolt

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Abstract

Bolt is intended to be a fast paced multi-player racing and first-person shooter hybrid. The primary intention of the game is to entertain the player without a great deal of time investment, and to allow the player to drop game play at his/her whim. Bolt innovates particularly upon game control, which employs the mouse and keyboard for two entirely different purposes. Specifically, the mouse is used for weapons aiming and fire, while the keyboard is used to control the players motion and direction. This combination, will allow a player to both engage in the shooter aspect of the game and the racing aspect of the game. Additionally, the game has a relatively rich back story, set the futuristic after-apocalypse of a distant galaxy. This story sets the theme for all the maps in the game, which present a diverse set of environments and challenges.

Overview of the game

The title of the game is designed to appeal to the racing/shooter market by inspiring a feeling of speed and intensity. The premise of the game is that tribes of humanoid warriors race in competition to prove their honor and supremacy, in a futuristic galaxy far in future. Using both weapons and skill, players can achieve the edge necessary to win in a cutthroat battle among many.

The game will be set in a futuristic galaxy, which is in decay due to some sort of apocalypse. This will set the theme of every map in the game, since there will be many different maps used within the game. For instance, urban maps will include magnificent building structures in significant decay, around or upon which the player will compete. Furthermore, some maps include jungle and open terrain where natural processes have eroded away the cities and towns of civilizations long since past. It is intended that each of the settings used in the maps will be as feature rich as possible to make each map immersive and attractive. The game's back story lends itself to an open set of possible settings, which makes for a more eye-catching experience for the player.

The storyline of the game merely supports the action and setting, rather than providing any critical information to the player. Therefore, the story of the game is much more of a back story intended to add some immersive elements to the game itself. The story is initially set far in the future among the decaying remnant of several great civilizations, which existed upon the countless worlds of a distant

galaxy. Very little factual information actually exists about ages past, save for a few clues and hints about the great cultures that once existed. Such clues include the wreckage of enormous battleships and other weapons of war. Thus, the overall feeling of the game is that an unimaginably terrible conflict occurred and resulted in the utter devastation of civilized society. And though the great civilizations have long since fallen when the game takes place, there are clear distinctions between the competing tribes. The unique distinctions and attributes of each tribe act as a shadow of what each civilization used to stand for and represent. This is essentially where the story ceases to be prevalent with the exception of additional clues about the history of the tribes, which are presented through artistic elements in the game play maps. The game presents no particular “ending” to the story, but rather leaves the player with a sense of mystery.

Bolt innovates specifically on game play above all other design issues. As a result, the player will be able to start game play immediately and drop game play immediately. Thus the game is targeted to the moderately casual gamer, who is looking specifically for an action game.

In terms of platform, the restrictions of the torque game engine allow Bolt to run only upon the PC platform under the Windows and Linux operating systems.

As a genre, Bolt is a hybrid between the racing and first person shooter genres, and intends to present both a casual and intense experience. This mixture of genres allows this game to employ the following game types:

1. **Pure racing** - Race to some finish line or some timed goal without the use of weapons.
2. **Mixed Racing and FPS** - Race to some finish line or some timed goal with the use of weapons to gain an edge over the competition.
3. **FPS** - Racing is a peripheral component of the match, and instead focuses on the FPS aspect of the game. This means that the number of kills or some similar benchmark is used to determine a winner.

Furthermore, because of the expected level of violence and action, this game will be intended for teens 13 and up. However, blood and gore will not be prevalent in this game since these effects offer no interesting enhancements to the game play. Furthermore, this game will be intended for both males and females, by providing male and female character models; but it is expected that this game will appeal primarily to men as opposed to women. Finally, experienced gamers will probably be more comfortable with the game since it has a complicated control system. Thus, the anticipated rating for Bolt is T for Teen.

Since the game is designed to be highly competitive, the game mode will be primarily multi-player. It is expected that 10-20 players will be ideal, however more than 20 players will be capable of playing on a

single server, because of the player limits inherent in the Torque Engine. Furthermore, a single-player mode will be available for training purposes.

The game is arranged into levels or maps, of which there will be many. Each map presents a different raceway and a different set of racing obstacles which the player must navigate.

The players role in Bolt is as a tribal competitor in the racing competition. Players can choose any tribe they like, however there is no difference between tribes except for the avatar model. There is a finite set of avatars that the player can assume control of (avatars are not necessarily unique within a match). There are a small set of avatars for each tribe within the game, in order to enforce the back story. The focus on the game is not upon investment in an avatar or in skills and attributes, but rather clever manipulation of the game controls to jockey for first place. Essentially, the player's command of the game controls and strategy makes the avatar unique, not the avatar itself. Furthermore, the player has a choice between first-person or third-person point-of-views.

The obvious goal of the game is to be first in the competition, whether it be fighting or racing. Therefore, the challenges are navigating the raceway, defending position from other players, and the advancing position through the use of clever racing strategies and accurate weapons fire.

Game Play

The reward system is outlined below based upon game mode:

- **Racing Mode:** Players are assigned points based upon their finishing position among other players.
- **Battle Mode:** Players are assigned points based upon the number of kills they make against other players.

Totals from each iteration on a map compose the final scores for a match. It is conceivable that additional points can be given for accurate weapons fire or clever racing strategies, in addition to the standard rewards system.

Velocity is manipulated solely by the keyboard, which frees the player to use the mouse for weapons. Acceleration is achieved with only one key; and using two other keys, the player can manipulate the direction of the accelerator (engine). The accelerator is **not** fixed on at any particular point on the vehicle, but rather on a small rail that encircles the vehicle. Thus, changing the direction of the accelerator really means transforming its position upon this rail. This system allows the player to achieve analog control of direction without the use of the mouse. Thus, the player is free put the mouse to work on the weapons system where it serves as a superior input device. Weapons in the game primarily

include projectiles, however melee items will also be employed for closer combat.

The core of the game play is navigating the raceway whereas the use of weapons is a secondary function used to obtain an edge. The weapons which the player has are part of an inventory which must be selected before a race. Furthermore, ammunition can be exhausted during a race, which adds a conservation aspect to the game play. The weapons in the game will each present certain attributes and advantages, and thus the player must select a set of weapons that he/she thinks will provide an edge for the given map.

Time in the game is not particularly significant, since the winning a race/battle is relative to the other players in the match. However, it is conceivable that the game could be time-based for players interested in a different type of experience.

The players in a race do not have lives, but rather when a player absorbs weapons fire from a foe he/she loses speed as more fire is absorbed. Furthermore, leaving the track and falling to certain “doom” results in re-spawning on the track ahead of the other players but with no speed. Thus, the player is penalized for falling off the track.

The interface of the game is very simple and presents the user only with essential information. Such information includes the current weapon, current ammo levels, current position in the race, and some information about the upcoming track dynamics (i.e. turns, environmental effects, etc.).

Each map in the game is fundamentally different from each other map in the game. The primary difference between maps is the track itself, but the setting and environment of the map can also vary heavily between maps (making the game slightly more immersive than it would otherwise be). Players do not “advance” to other maps (levels) but rather, choose through popular vote or by server choice the next map to play.

Audio and Video

Bolt must be fully 3D in order for the control system to make sense and the create the level realism desired. However, the game is not intended to be strictly realistic, but rather stylized in the following manner. As suggested above, game will have a distinct sci-fi look with a dark and grungy tint that will impose a feeling of decay upon the player. This tint is intended to contrast with more colorful environments which some maps may present (i.e. flourishing plant growth over ancient machinery and building structures). Though some maps may be dark and foreboding, not all maps must conform to this style. Bright and sunny maps will be included, but will still convey a sense of decay through decorative objects (i.e. ancient spaceships, buildings, etc.). Because the game is intended to be fast paced and fierce, frame rate performance is key. Therefore, the number of expensive effects such as shaders and high poly-

count objects will not be included in the standard maps. This means that the game will run smoothly on many more machines than it would otherwise. Furthermore, the bulk of the game's detail will be focused on the player and vehicle models, which the player is concentrating more often than the scenery.

Audio in the game will be fully surround sound compatible so that players can identify objects around them (for combat purposes). Sound effects will uniquely identify weapons and engine types so that players can quickly identify their foes and the severity of incoming weapons fire. Other than providing players with useful information, some audio effects will be used to make the environment more believable and interesting. Such sound effects might include the sound rain, ocean waves, wind, etc. Avatar voices/dialog will be present in the game but are not particularly useful except to taunt or provide rudimentary communication. The primary mode of communication among players is text messaging.

Elemental effects such as rain, snow, or fog will be included depending upon the map. Such effects will be used to impose visibility challenges on the player, and force certain reactions such as slowing down. Unlike traditional racing games where environmental effects are used to impose changes in vehicle response (i.e. slippery roads in the snow), the vehicles in Bolt will not be affected by such conditions.

Finally, Bolt will not employ the use of tactile feedback, since such control devices are not popular in the Personal Computer environment.