Peer review | HyperGlide
Computer Game Development and Design (MTAT.03.263)
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Performance:

1st SETUP
Specs:
- RX 580 8GB
- Intel i5 6600k 4.5 GHz all core frequency
- 16 GB DDR4 2400 MHz
- OS: Windows 10
- Resolution: 1920x1080

Framerate maintained between 75-120 fps, with an average of around 105 fps. No significant change in framerate was observed when in fast motion. Fps was bottlenecked by the GPU. Cpu had a relatively even distribution of workload with a 25%-40% usage on all cores. Game used about 350 MB of ram.
I was able to achieve the lowest framerate by running through the grass and looking directly down. I achieved a minimum of 64 fps with this method. The grass shader is really nice, but if used on too large of a scale could create performance problems for weaker systems.

2nd SETUP
Specs:
- Intel i5-8250U 1.60GHz all core frequency
- 16 GB DDR4 2400 MHz
- OS: Windows 10
- Resolution: 1920x1080

Sadly with university laptops this game is unplayable, because of a very low framerate. It would be nice to have at least some settings to reduce the overall graphics and post processing effects. Grass seems to be the main problem.

Bugs:
- Music and Volume audio sliders are only clickable when selecting the upper part of the slider knob. SFX slider works as intended.
● It’s currently possible to get to the final checkpoint by falling to the liddle cliff on the side. Most likely just need to adjust the bounds of the checkpoint.

● Sliding creates footstep sound effects. (I think you already pointed it out in the Milestone 2 presentation)

● The resolution option only changes the resolution, not the refresh rate. After choosing an option, the appropriate refresh rate is chosen based on the monitor (Tested on 2 monitors with different refresh rates 60hz and 144hz). This creates a misconception that the player can cap the framerate when in reality they can’t.

● In Windowed Mode it seems like resolution resets when you open the settings menu again.

● Going to the menu while the player is moving/running/jumping, seems to reset player movement speed.

● Some kind of bug with moving in the ingame menu with keyboard buttons. Also the up arrow moves down and skips “Load game” in the main menu.

● Some kind of post processing makes the game kinda blurry on pixelated on a school laptop.

● While loading the level, the player is somewhere under the ground. With a lower end PC, this time is quite significant (3-4s).

Suggestions:

● For this type of game, it would be convenient to also have a separate slider for mouse sensitivity in menus.

● Don’t use the grass shader too much (current usage is fine), as it could create framerate drops noticeable to the player.

● Simple graphics option(low/high)

● Currently the player is heavily punished for mistakes because they have very little control over their movement direction when in high motion in the air. It would be nice to have a dash ability of some kind, so the player is able to make a
drastic change in direction in mid air. That however depends on if it fits with your current vision of the movement system.

- You already have visual upward wind drafts, would be cool, if there were bigger ones that tossed the player upwards.
- Vine swinging could fit the floating island aesthetic, though it is probably beyond the scope of this course.
- Wall jumping would create a lot of different platforming options.
- Make the menu option highlight when the player hovers that option with the mouse.
- “Islands” with different colors and special boosts/effects. Let’s say green island helps the player jump higher, blue makes player movement speed faster and red makes the player movement speed slower.
- Remove the @hz from the resolution dropdown, as this list gets too long with 2K and 4K monitors. Let the hz rate be set via the operating system. Currently it doesn't work anyway.
- Add some kind of background music. Current environmental sounds are nice, but if you have played CS1.6 surf, then you know good music is a crucial part for such surf games.
- Moving islands.
- Camera movement should start if you idle too much. Currently it is more like an annoying factor.
- Key binding options. I personally like to jump with the mouse wheel in such a game.

Thoughts:
Overall the game looks and feels really nice. It really shows that you guys have some prior experience.