

Project Hellknöv

Group 3

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4. Graphical User Interface

4.1 Overview

In Hellknöw the user is able to play a multiplayer game against an adversary or play a singleplayer game to practice his or her skills. To choose between the two different modes the user is presented with a main menu and various sub menus (picture 1). The users must navigate through them to make their choice. When a game has started the user will see the game screen (picture 5). On the game screen the user will see his avatar, which the user is able to move around, and various objects which will hinder the avatars movement. To overcome these obstacles the avatar is able to jump and climb ladders. The avatar is also able to shoot. When playing a multiplayer game there will be an additional avatar representing the adversary. The goal of the game is to kill the adversary's avatar. When the game screen is displayed there will be various hot keys that allows the user to make various options. When the user has finished playing the game the user is able to quit the game by pressing the corresponding hot key.

4.2 Structure of Menus

- Singleplayer
- Multiplayer
 - Show My IP
 - Host Game
 - Join Game
 - Back
- Quit



Picture 1: Main Menu

Singleplayer

This is one of the options displayed on the first menu that appears when our application starts. Clicking this option will immediately start a singleplayer game instance.

Multiplayer

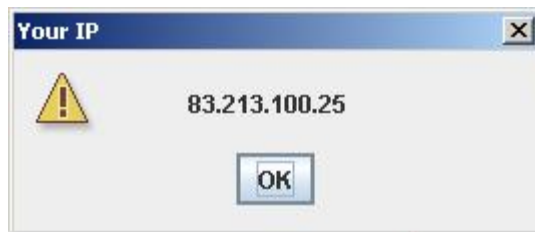
Another one of the initial menu options first displayed when the application starts. Clicking this option will change the current menu into the submenu for multiplayer containing new options. Within that submenu there will be a "Back" option that will return the user to the initial menu containing amongst others the multiplayer option.



Picture 2: Multiplayer Menu

Show My IP

This option is located in the multiplayer submenu. Clicking this option will trigger a box showing the users IP with an "Ok" button indicating that the user is done looking at the box and does not want to see it any more.



Picture 3: IP Dialog

Host Game

This option is located in the multiplayer submenu. Clicking it will show a box indicating that the game has hosted a game and is presently awaiting connection from the adversary. There will be an option for canceling this wait process. When/if the adversary has connected the box will disappear and the actual multiplayer game instance will initiate.



Picture 4: Hosting Game

Join Game

This option is located in the multiplayer submenu. Clicking this option will trigger an input box being displayed prompting the user for the hosts IP. When the IP has been inputted the game will hide the box and show a new one saying "Connecting to host", this box will have a cancel option that will return the user to the multiplayer submenu. When/if the connection to the hos is established the multiplayer game instance will initiate.



Picture 5: Joining Game

Back

This option is located in the multiplayer submenu. Clicking it will return the user to the initial main menu.

4.3 Basic Interaction

Gameplay Mode

Controls and Fields

All the controls will be invisible on the screen. All the controls will be hotkeys which users will be instructed to get familiar with. There will be little hints on the side of the screen indicating how to use the basic commands.

Basic commands-

1. **the *esc* key-** to quit the game
2. **the *p* key-** to pause the game
3. **the *r* key-** to resume if in a paused session
4. **type *son-*** to turn the sound on if it's not currently on
5. **type *soff-*** to turn the sound off if it's on

Fields on the screen-

1. **Main field-** it's the main part of the graphics display of the game where you can see the avatars and game environment.
2. **Health field-** this shows the user how much more attack the player can take.
3. **Hitpoints field-** this shows the user how many hitpoints the player has obtained already in this single session.
4. **Hints/ Hotkey field-** this shows the hotkeys of basic commands described above.

Controls of the avatar-

1. **the *w* key-** move the avatar up if on a ladder; if not, do nothing
2. **the *s* key-** move the avatar down if on a ladder; if not, the avatar squats
3. **the *d* key-** move the avatar to the right on the ground, also while falling
4. **the *a* key-** move the avatar to the left on the ground, also while falling
5. **navigation of the mouse-** move the centerline, which falls on the mouse cursor, of fog of war
6. **left button of the mouse-** shoot the weapon at hand

7. the *q* key- switch weapon
8. the space key - jump



Picture 6: Game Screen

4.4 References to Functional Requirements



<i>Number in picture</i>	<i>Reference to functional requirements</i>
1	4.1.4.4 Climb ladders A player climbs a ladder.
2	4.1.4.3 Crouch A player crouches.
3	4.1.4.2 Jump A player jumps.
4	4.1.4.5 Pass through objects A player is not able to pass through objects. Here the player is not able to pass through the ground.
5	4.1.4.1 Move horizontally The player moves horizontally.
6	4.1.2.1 There will be obstacles in the game preventing the player to move in certain directions. A crate prevents the player to move.

<i>Number in picture</i>	<i>Reference to functional requirements</i>
7	4.1.2.2 Different obstacles have different properties. A pit is an example of a different obstacle.
8	4.1.4.7 Use assigned weapons The player uses his assigned weapon.
9	4.1.4.6 Changing line of sight The player changes his line of sight.

