CS4344 - Network and Mobile Games
Mobile Game Development Project
Black Thunder – User Guide

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**Storyline**

At year 2056, teleportation has become reality for mankind. It has fundamentally changed the way people live by eliminating traditional slow, risky and polluted transportation system. However, huge amount of energy are needed for teleportation and even nuclear energy come to a shortage. Therefore, many spaceship fleets with scientists and soldiers are sent out to outer space to explore new energy source.

One team with flagship named “Black Thunder” are trapped by a big Warm Hole and transmitted to somewhere unknown. There they detect huge amount of energy from a planet, and thus dispatch troops to go and collect energy sample. Unfortunately, about half of the troops are deluded and controlled by this mysterious energy force “The Source” from the planet, and they turn the cannon back against Black Thunder’s troops to protect the energy. This is where the fight starts.

**Game Concept**

Black Thunder is a 2D turn based network mobile game. Players select one type of machine from the following to fight in a 2D territory:

- **Phoenix**: Armed helicopter-like aircraft which can travel without constrain and protection of terrain. It has medium firepower, low armor, and high mobility.

- **Scout**: Light armed jeep which travels rapidly on the ground. It has medium firepower, medium armor and medium mobility.

- **Tank**: Heavy armed tank which holds great attacking power. It has heavy armor and firepower but low mobility.

**Turn-based System:**

- The players take turns to give instructions to their tank.
- Each turn would last for 20 seconds; the turn would end when the time runs out or on a successful shooting performed by the player, whichever is earlier.
- The playtime of each turn and the bullets used by the user would be used to calculate the time of his next turn, thus fast shooters would generally have more turns to play.
**Player Attributes:**

- **HP:** The life reduced once the machine is attacked by others.
- **NORMAL/POWER ATTACK:** The damage a machine can produce with a successful attack. Inaccurate attack will produce less damage. The second weapon with different damage and attributes is useable by pressing the OK key.
- **FUEL & SPEED:** Fuel is the time that a machine can move, and speed is the distance that a machine can move across at a time. These overall constitutes the distance a machine can move across in a turn.
- **Maximum Slop:** The maximum slope a machine can climb onto. Machines with a large maximum slope can climb onto cliffs, while machines with a small maximum slope would be stopped by a small bump on the floor;
- **MAXANGLE/MINANGLE:** The maximum and minimum angles a machine can shoot in. This would generally affect a machine’s ability to attack other machines in tricky terrains. For example, if a machine has the maximum shooting angle of 30 degrees, yet it is facing a 45 degree slope, cannot shoot without injuring itself.

**Unit Balance and Strategies:**

- Each machine has different initial hit-points, fuel, movement speed and two different attacks. Each attack has different area of damage, special effect and the damage they exert over different units varies.
- **The phoenix is a light armored flying unit.** It has the lowest initial hit-points among the three, yet it has the most fuel and the fastest movement speed. As the phoenix is flying in the air, it does not die falling down into holes on the floor, it is less vulnerable to area attacks and is hard to aim. The normal attack of the phoenix does extra damage to phoenixes and scouts, and the power attack of the phoenix does extra damage to tanks. In the game, the phoenix is more likely to be used as a tank killer.
- **The Tank is a heavily armored ground unit.** It has the highest initial hit-points among the three, and it has the least fuel and the slowest movement speed. The normal attack of the tank does extra damage to scouts and tanks. The power attack of the tank does extra damage to scouts and its area of effect is fairly large, which enables the tank to drill large holes on the ground, thus limiting the movement of the opponent or even kills him by blasting through the entire floor underneath him. The tank is more likely to be used as a scout eliminator.
- **The Scout is a light armored ground unit.** It has medium initial hit-points among the three, and it has medium fuel and movement speed. The normal attack of the scout does extra damage to scouts and phoenixes, and reduced damage to tanks. The power attack of the scout is EMP, it does normal damage to both phoenixes and tanks and immobilizes them for two rounds. Once a scout gets underneath a phoenix, the latter’s chances to survive is very small.
**Winning Criteria:**

- Players’ units are destroyed when their hit-points reach zero or their units fall too deep into the floor.
- The players would try to destroy all the units of the players on the other team to achieve victory.

**New Player Guide:**

- Register a User
  - If Black Thunder is started at the cell phone for the first time, you need to provide following information to register with the game server:
    - Cell phone number (must be 8 digits)
    - User name: To identify your character in the game
    - Password: To authorize your identity
  - Once all three fields are filled, you could select the “Register” button to send the message to the server. Alert will pop up if the registration information is not complete or valid.
  - You can get more information by selecting “Help” button.
  - If you already have an account, you can just input your password at the login screen.

- Enter Game Hall
  - Once you finish the registration, a “Welcome” screen will show up and the main game hall is retrieved from the server.
  - After the loading is finished, all existing rooms in the hall will be listed.
  - You have three options here:
    - To join any room that is not full.
    - To create your own room and invite people to join.
    - To refresh the room list.
Create a Room

- Once you click on “Create a new room”, a new form will show up and you need to input the maximum number of players and the game map.
- After that, you could press submit to create your room.

Enter Game Room

- You could press “Select” button to choose the room you want to join.
- After that, choosing “Enter” option will lead you to the character selecting screen.

Start Playing

- Keypad Setup
  - Six keys are used in the game; they are up, down, left, right, fire and OK.
  - Use the up and down key to adjust your shooting angle respectively if you are using a tank or a scout. Use them to elevate or decline your position if you are using a phoenix.
  - Use the left and right key to move left / right if you are using a tank or a scout. Use them to adjust your facing angle if you are using a phoenix.
  - Press and hold the fire key until the right firing power is reached, release the fire key to shoot. The normal attack of all machines and the power attack of scout will always be shot with the maximum power.
  - Each machine has two kinds of attacks, the normal attack and the power attack. Use the OK key to switch between them.