T-404-LOKA, Final Project

GUMMS
User Manual

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1 Introduction

This software is an implementation and proof-of-concept alpha demo of the strategic combat simulation part of GUMMS (Generic Universal Massively Multiplayer System), where two players each take control of a team of characters, and then attempt to kill all members of the other team.

2 Joining a Game

Upon starting the game, you will be taken to the main menu, where you can choose whether you want to play a local two-player hotsteat game, or an online multiplayer game.

Figure 1: Main Menu

After choosing a game mode, you will be taken to the game lobby, where you can choose which team you'd like to play as. If you chose multiplayer, you only need to choose members for your own team. Alternatively, if you chose two-player local hotseat, you will have to choose team members for each player consecutively. You can choose up to 3 characters for each team.
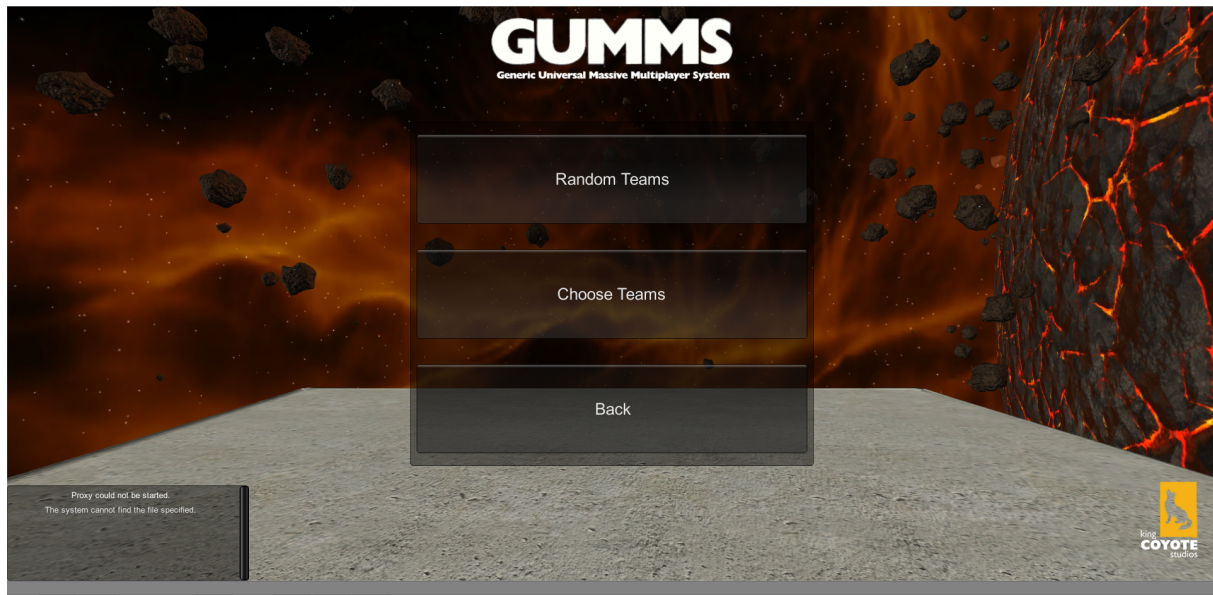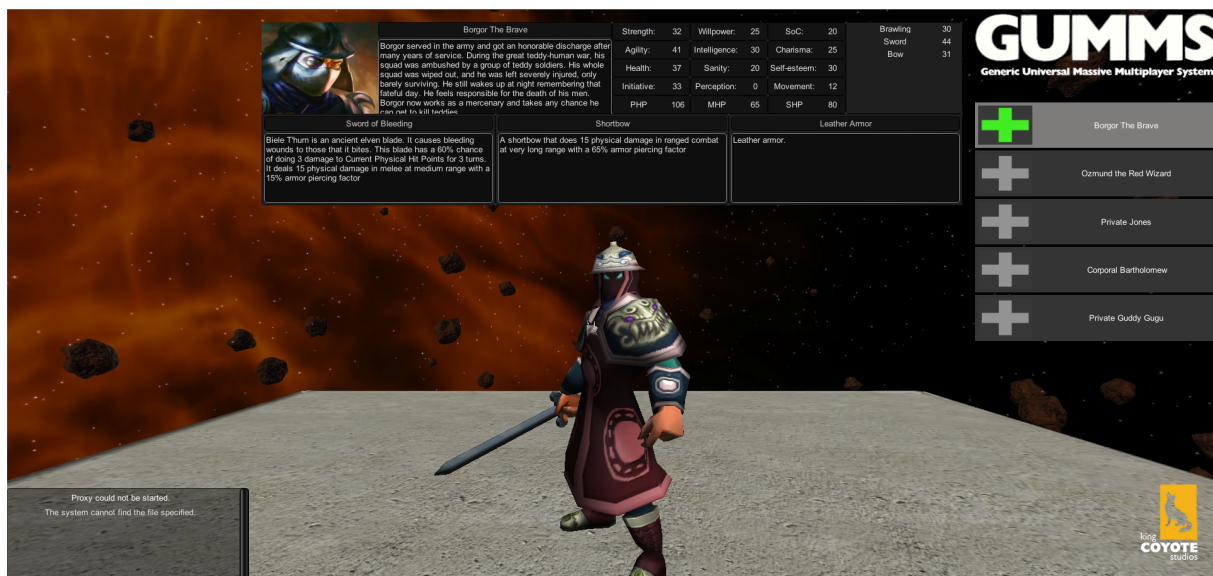
Figure 2: Lobby

Figure 3: Team Management

After confirming your team selection you will be taken back to the game lobby. Upon clicking "Start Game", the game will attempt to match you up with another player waiting to play a game. Alternatively, if you chose local hot-seat, the game will start as soon as you accept the second player's team.

3 The Characters

Characters are the vessels of the players' will in the game-world. Each character consists of a list of attributes, skills, traits and equipment.

3.1 Attributes

There are three categories of attributes; mental, physical and social. Each category has three types; strength, agility and health. This totals to nine main attributes. In addition to these there are derived attributes; Mental Hit Points, Physical Hit Points, Social Hit Points, Initiative and Base Movement. An average human has a score of between 15 and 35 in each of these, 25 being the norm. If a main attribute ever drops to zero, the character dies. If any of the hit points attributes drop to zero, the character is either: gone insane (Mental hit points), rendered incapacitated (Physical hit points), or lost all will to live (Social hit points). In any case he will not be usable for the rest of the game. In addition, each character has 3-4 "pips" each turn which he uses to perform actions with.

Table 1: Attributes

Attribute	Mental	Physical	Social
Strength	Mental Strength (MS) *"Willpower"*	Physical Strength (PS) *"Strength"*	Social Strength (SS) *"Force of Character"*
Agility	Mental Agility (MA) *"Intelligence"*	Physical Agility (PA) *"Dexterity"*	Social Agility (SA) *"Charisma"*
Health	Mental Health (MH) *"Sanity"*	Physical Health (PH) *"Health"*	Social Health (SH) *"Self-esteem"*

Table 2: Derived Attributes

Derived Attribute	Mental	Physical	Social
Hit Points	$= MS + 2MH$	$= PS + 2PH$	$= SS + 2SH$
Initiative	$= (MA + PA + SH)/3$		
Movement	$= (PA + PH + PS)/9$		

3.2 Skills

Skills represent a character's aptitude in a certain field, be it how well he can swing a sword and shoot a bow, or how good of an engineer he is, or even how good he is at computer programming.

Skills are represented with a value ranging from 0 to 100. 0 being the absolute lowest and 100 being the absolute highest. A character with 0 in the Sword skill, for example, does not know which end of the sword to point at the enemy while a character with 100 in the Sword skill is a master swordsman and has likely trained in swordsmanship for many years. Gameplay wise, this means that a character with a higher skill in something has a greater chance of success when

performing actions tied to that specific skill.

Since this game only focuses on the combat simulation part of GUMMS, only combat skills are included.

Weapon Skills Each of these skills represent a character's proficiency with a certain type of weapon.

- Axe

- Bow

- Dagger

- Mace

- Polearm

- Shield

- Spear

- Sword

Other Skills Other combat related skills that are not weapon skills.

- Brawling

- Karate

- Magic

3.3   Traits

Any modification to a character's status is represented in the game with traits, be they temporary or permanent. This ranges from damage taken, to buffs, to pips used. Each trait can either have a duration, that is how many turns it lasts, or be permanent. Pip payments are temporary for example, while damage is permanent.

3.4   Equipment

Each character comes equipped with a melee weapon and a ranged weapon, and can switch between these weapons during battle. Additionally, all characters wear some type of armor and some of them have a shield equipped.

4   Game interface

This is the main game interface when playing a game. Description of each interface element follows below

Figure 4: Game Interface

1. **The characters:** The characters the player controls. The green circles around the characters show their minimum and maximum attack ranges.

2. **Maximum movement range indicator:** Displays the maximum possible move distance of the current character.

3. **Turn order:** Displays the order in which characters perform actions, ordered from left to right.

4. **Team view:** Displays detailed information about each character on your team, including their current attributes, traits, skills and equipment.

5. **Target display:** Displays information about your current target.

6. **Combat log:** Displays detailed info about all actions that occur in the game.

7. **Action bar:** Displays all available actions, and quick info about the active character, including current hit points and current pips.

4.1 Keyboard Shortcuts

To ease the player's experience, a number of keyboard shortcuts are included. The camera can be panned around the scene using either the W, A, S, and D keys, or the arrow keys. The camera can also be panned using the mouse by holding down the CTRL button. Q and E can be used to rotate the camera. The C key opens the team display panel, and pressing C again cycles through the characters of the team. With the team display panel open, the TAB key will cycle through the different subpanels of the currently selected character, giving the player access to detailed information about that character. Finally, the ESC key closes the team display panel.

5   Playing a game

Once you have joined a game, both players will take turns performing actions with their characters in turn order determined by the initiative scores of the characters. Gameplay will continue in this manner until one side has been completely wiped out and the other side declared the victor.

5.1   Actions

When it is your turn to control one of your characters, you can instruct him to perform a number of different actions. Each character has 3 pips to spend on actions each turn. Actions can have differing pip costs. Each action has a governing skill tied to it, which indicates which skill is needed to perform the action.

Actions are provided from many sources. Your character's currently equipped weapon provides him actions that let him attack with that weapon. All weapons provide the standard attack actions. Additionally magical weapons can provide a character with additional actions.

Skills can provide a character with many different actions. For example, the Karate Skill provides the actions Karate Chop and Karate Kick, while the Brawling skill provides the action Brawling Parry.

To instruct your character to perform an action, either click on the action you want to perform in the action bar, then click on the target that you want to perform it on (if required). Alternatively you can right click on the target you want your character to perform the action on, and select it from the context menu that appears.

The actions characters can perform are:
- **Move:** Moves the character to a new location that he can reach, given there is nothing blocking him from standing there. (1 pip cost)
- **Unarmed Attack:** Attempts to attack a target with an unarmed action. There are a number of different unarmed attacks
    - *Punch:* A swing of the fist. (1 pip cost)
    - *Kick:* A kick of the leg. (1 pip cost)
    - *Bitchslap:* A slap across the face. (1 pip cost)
    - *Karate Chop:* A more damaging fist attack. Requires the Karate skill. (1 pip cost)
    - *Karate Kick:* A more damaging kick. Requires the Karate skill.(1 pip cost)
- **Melee Attack:** Attempts to attack a target in melee range with the currently equipped melee weapon. There are a number of different melee attacks:
    - *Standard:* A normal swing of the weapon. (1 pip cost)
    - *Aimed:* An aimed swing that has a greater chance of success. (2 pip cost)
    - *Heavy:* A more powerful and damaging swing that has a lesser chance of success. (2 pip cost)
- **Ranged Attack:** Attempts to attack a target at range with the currently equipped ranged weapon. There are a number of different ranged attacks:

- *Standard:* A normal shot of the weapon. (1 pip cost)

- *Aimed:* An aimed shot of the weapon that has a greater chance of success. (2 pip cost)

- *Throwing:* Throws the currently equipped weapon. The weapon is not retrieved after the throw. (2 pip cost)

- **Swap Weapons:** Switches between a melee or a ranged weapon. (1 pip cost)

- **Reload Weapon:** Restores the ammo count of the currently equipped ranged weapon to maximum. (1 pip cost)

- **Healing:** Heals all types of damage done to a friendly character. (1 pip cost)

- **Defensive Stance:** Do nothing this turn, but try to defend against any incoming attacks until that character's next turn. (0 pip cost)

Your character can keep performing actions as long as he has pips available to him. When his pips are done, or you choose the Defensive Stance action, that character's turn is over and the next character gets a go.

5.2 Defending

When a character gets attacked, he can attempt to perform a defensive action, if he had pips available at the end of his last turn. The available defensive actions are:

- **Dodge:** Attempts to dodge out of the way of the incoming attack. (1 pip cost)

- **Brawling Parry:** Attempts to parry the incoming attack without using a weapon. (1 pip cost)

- **Melee Parry:** Attempts to parry the incoming attack with the currently equipped weapon. (1 pip cost)

- **Karate Parry:** Attempts to parry the incoming attack using the Karate skill. Requires the Karate skill. (1 pip cost)

- **Shield Block:** Attempts to block the incoming attack with the currently equipped shield (if any). (1 pip cost)

If the target succeeds at defending, the attack fails and the target takes no damage. If the defender fails at defending, the attacker takes damage, mitigated by armor (if any).

5.3 Cover

If a character is in cover, he will be harder to hit with ranged attacks. Cover is displayed as a % value in increments of 10. Thus a character attacking a target which is in 60% cover will only have 40% of his normal chance to hit that target while a character attacking a target that is only in 20% cover will have 80% of his normal chance. If a character is in full cover, he cannot be attacked with a ranged attack.

6 Glossary

- **Action:** Something that a character can do.

- **Armor:** Equipment used to defend against attacks.

- **Block:** A defensive action used to avoid an attack.

- **Character:** The units controlled by the players in the game.

- **Cover:** Reduction of a character's chance to be hit with a ranged attack.

- **Defense:** An action used to mitigate/avoid an attack.

- **Dodge:** A defensive action used to avoid an attack.

- **Melee attack:** A close range attack.

- **Parry:** A defensive action used to avoid an attack.

- **Pip:** The currency used to pay for performing actions.

- **Priority queue:** The order in which characters can perform actions.

- **Ranged attack:** A long range attack.

- **Shield:** Equipment used to block attacks.

- **Skill:** Representation of a character's aptitude in something.

- **Weapon:** Equipment used to attack with.

- **Target:** A character that an action is being performed on.

- **Trait:** A change to a character's status.