

## **UNT2: Final Fantasy Tactics Advance Unity Clone (Midpoint Check)**

### "Gemini" Group Members

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### Submission Contents

- UNT2 Gemini Midpoint Check (PDF)
- FFTA-mid (Unity Project Folder)
  - Scripts are located in FFTA-jo > Assets > Scripts
  - Sprites are located in FFTA-jo > Assets > Sprites
  - Playable Game is located in FFTA-jo > FFTA.exe

### Demonstration Videos

- Submitted game: <https://www.youtube.com/watch?v=ebS-iL5jhjw>
- Turn-based (not integrated): [https://media.oregonstate.edu/media/t/0\\_r8pbl759](https://media.oregonstate.edu/media/t/0_r8pbl759)

### Project Status

The Gemini Team is halfway into the creation of a Final Fantasy Tactics Advance Unity Clone. We have the maps for all three levels completed. We also have most of the character animations completed, including the ones for walking and attacking. We created a Main Menu, where one can choose to Play one of the three levels or Exit the game. There is also a System Menu in the levels, where one can choose to return to the Main Menu or Exit the game.

Our levels are incomplete. Characters can move from one tile to another tile. The tiles a character can move to is highlighted blue. Characters can also attack another character. The tiles within a character's attack range is highlighted green. When a character attacks another character, the attacked character's HP is subtracted by the attacking character's Attack Power. This does not yet have an influence on the gameplay because we have not set a Win Condition for the levels. We have also implemented turn-based gameplay structure, but have not integrated the feature in the portion we are turning in this week.

There is still a lot of features we need to implement, including saving game progress, updating the User Interface when one character attacks another, having individual stats for characters, and more. We are confident that we will be able to complete the project by Week 10.

### User Instructions

#### **Starting the game**

There are two ways to play the game:

1. In the FFTA-jo folder, there is an executable labelled FFTA.exe. Run the executable to play the game. Do not move it from the folder.
2. If you have Unity installed, you can load the project in Unity by double clicking the Scenes “menu” or “main.” They are located in the file path FFTA-jo > Assets > Scenes. The “menu” Scene will display the Main Menu while the “main” scene will display Level 1.

## **Player Controls**

Since the game was originally made for Nintendo Game Boy Advance, we have tried to replicate the controls as much as possible. We have therefore made the keyboard key “z” correspond to the Game Boy’s “a” button, and the keyboard key “x” correspond to the Game Boy’s “b” button. Essentially, “z” represents confirm, while “x” represents cancel.

To select a level from the Main Menu, please use your Mouse to choose a level or to exit the game. Once a level is loaded, click the left, up, right, or down arrow key to move the cursor (yellow brackets) in the corresponding direction.

To select a character, move the cursor to a Tile with a player and press “s”. Note that the enemy characters cannot be selected, since a player should not be able to control them. By default, Marche (yellow-haired human wearing blue shirt and brown pants) is selected.

To perform an action with a character, select the character. Move the cursor to the selected character’s tile and press “z”. A menu should appear on the right hand side. The player can choose to Move the character (labelled Move) or Attack with the character (labelled Action).

To move the character, select Move on the Menu by pressing “z” when the Move option is highlighted. Blue tiles should appear around the selected character. The blue tiles indicate where a player can move. Choose a blue tile to move to, and press “z” to confirm your choice. The character should then move to the tile.

To attack with a character, select Attack on the Menu by pressing “z” when the Attack option is highlighted. Green tiles should appear around the selected character. The green tiles indicate the player’s attack range. Choose a green tile where a Character is standing and press “z” to attack the character. Two boxes should appear showing some Character information and Marche’s character portrait (feature not yet complete). Press “z” again to confirm the attack. The attacking character should then perform a punching animation and the attacked character should perform an animation of being hit.

To return to the Main Menu or exit the game while in the middle of the level, press the Esc key. To return to the Main Menu, press “z” while Main Menu is highlighted. To exit the game, press “z” while Exit to Desktop is highlighted. To close out of the System Menu, press “z” while Return is highlighted, or press the Esc key.

## Example Instructions

1. Double click FFTA.exe
2. Click Play! (Screen Resolution: 1920x1080, Quality: Ultra, Monitor: Display 1)
3. Press Level 1 with your Mouse
4. Press Right key x2 Up key x2 (cursor on Marche)
5. Press “z” to open up Action Menu
6. Press “z” to select Move on the Action Menu
7. Press Up key x3, Right key x1, “z” (move to new Tile)
8. Press “z” to open up Action Menu
9. Press “z” to select Move on the Action Menu
10. Press Up key x1, Right key x2, “z” (move to new Tile)
11. Press “z” to open up Action Menu
12. Press Down key x1, “z” to select Action on the Action Menu
13. Press Up key x1, “z” to select the Goblin to attack
14. Press “z” to confirm attack on Goblin
15. Press Esc key to open System Menu
16. Press Down key x1, “z” to exit the game

## Making Changes

To make changes to the game, open the project using Unity.

- GameManager.cs handles User Input through keyboard controls, as well as functions regarding the User Interface, Maps, and Characters.
- XMLManager.cs handles generating the maps.
- Character.cs handles all functions relevant to characters.
- Enemies.cs is derived from Character.cs, and handles all functions relevant to enemies.
- MainMenu.cs handles the Main Menu screen.
- PrefabHolder.cs and AssetHolder.cs are used for Instantiating GameObjects using scripts.
- BattleUI.cs is used for highlighting and selecting options in user interfaces.
- All scenes, sprites, animations, prefabs, and other assets can be found in their corresponding folder.

To compile the game, click “File” at the top bar and select Build & Run in Unity. Unity will prompt you to name your game, and it will create an executable file in the appropriate folder.

## Notes

This game was created and tested using Windows 10 and Unity 5 (2017.3.1f1).

## References

Unity Documentation: <https://docs.unity3d.com>

Example Unity Project: <https://unity3d.com/learn/tutorials/s/2d-roguelike-tutorial>

Level Design: <https://forum.unity.com/threads/solution-for-fast-level-design.416628/>

Reading from XML: <https://www.studica.com/blog/read-xml-file-in-unity>

A\* Algorithm: <https://github.com/davecusatis/A-Star-Sharp/blob/master/Astar.cs>

Passing Variables between Scenes: <https://www.youtube.com/watch?v=kwRlfAtcmOE>

Main Menu: [https://www.youtube.com/watch?v=zc8ac\\_qUXQY](https://www.youtube.com/watch?v=zc8ac_qUXQY)

UI Scaling: <https://www.youtube.com/watch?v=95q79j0INYA>

Various General Questions:

- <https://stackoverflow.com/>
- <https://gamedev.stackexchange.com/>
- <https://forum.unity.com/>

## Resources

Map & Character Sprites: [https://www.sprites-resource.com/game\\_boy\\_advance/fftacticsadv/](https://www.sprites-resource.com/game_boy_advance/fftacticsadv/)

Enemy Sprites: <http://tsgk.captainn.net/?p=showgame&t=sy&sy=4&ga=42&sec=26>

Game Reference: <https://emulatoronline.com/gba-games/final-fantasy-tactics-advance/>

Main Menu Image: <https://www.thefinalfantasy.com/ff-tactics-advance/wallpaper.html>

TextMesh:

<https://assetstore.unity.com/packages/essentials/beta-projects/textmesh-pro-84126>