

CS 426 Game Project Proposal

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Tactical Ninja Assault

1. **Provide an overview of your game (give a short description about the game, i.e., game plot, objective, etc.):**

Tactical Ninja Assault (TNA) is a puzzle/strategy game in which the player must guide three ninjas (Red, Green, and Blue ninjas) around the game world to perform different actions, avoid certain objects, and accomplish a level-specific objective. The ninjas are trying to infiltrate a fortress guarded by robots and must rely on their unique stealthy skills to reach their objective without being detected, and ultimately take down the leader of the fortress.

2. **What are the characters and their resources (e.g., health points, number of characters, weapons, etc.) in the game? What are the behaviors of the characters and how do they interact with each other and their resources?**

The player will not have direct control of the ninjas and must rely on placing action tiles onto the level grid during the setup phase. In this phase all objects and characters will be paused until the player chooses to launch the game into the action phase. When the game goes into the action phase the player will no longer be able to place action tiles, and will watch the ninjas as they move around the level, performing the actions corresponding to the action tiles that the player previously placed in the setup phase. If at any time during the action phase the ninjas encounter an error (such as being detected by an enemy, walking over a trap, or colliding with another ninja) the game will pause, alert the player, reset, and the player will be taken back to the setup phase to revise the placement of the action tiles. (The action tiles will not be reset, however, so the player will quickly and easily be able to make adjustments).

The movement of the ninjas will be simple. Each ninja will have a direction he is currently facing, and will move forward one tile per step of the action phase. If there is a wall or object in front of the ninja, he will turn right 90 degrees and continue to walk forward in the new direction. The only other way to change the movement of the ninjas will be by placing redirection tiles which will instantly send the ninja in the new direction the tile is pointing towards.

Some action tiles like the redirection tiles will affect all the ninjas. Other action tiles will be specific to each ninja. The Red ninja specializes in sabotage and will be able to disarm traps. The Blue ninja specializes in acrobatics and will be able to leap over walls. The Green ninja specializes in stealth and will be able to temporarily become invisible. If a ninja walks over a tile that does not apply to his color then he will ignore the action.

There will also be enemy robots that will detect the ninjas if they are within a certain range. These robots can be attacked and disabled but only if the ninjas are able to approach them from a direction not directly visible to the robots.

3. What types of conflicts do you have in the game?

The main conflict of the game is for the player to place action tiles in order to maneuver the ninjas across the level, and complete the specific objective without causing an error (setting off an alarm, being detected, or colliding into another ninja). The puzzle element comes from the fact that the player will be limited on which action tiles he can use and how many action tiles are available to him. While the level will be built with one ideal solution, the nature of the puzzle and the world will provide the player the opportunity to solve the level in a variety of ways.

4. Provide sketches/drawings to show how your game will be played. (Attach to this page)

5. What is the main language you will use to implement the game?

I will be using C++ to program this game.

6. What tools/libraries you will use?

I will be using OGRE as my graphics engine and Visual Studio as my IDE.

7. What types of user interface will you provide/use?

There will be a main menu screen that will provide basic organizational control for the player. Within the level there will be a UI at the top of the screen that will allow the player to pick from the available action tiles, and then place them on the level grid. There will also be a button to launch the action phase, and the user will be able to stop and return to the setup phase at any point.

8. What are the milestones you plan to have? Please give a short description and an expected finish time each for milestone.

I expect to complete all the ninja behavior and action-related event system by the end of February. By the end of March I hope to have completed all UI elements, including being able to select an action tile and being able to place it on a grid location, as well as the basic menu structure of the game. By the end of April I plan on completing the level design, and include as many levels as time permits. This time will also be reserved for fine-tuning any last details.

This plan is generally conservative and I am hopeful that each milestone will be completed earlier than expected. If this is the case I will move on to the next part of development and continue to add level content.

9. What are the difficulties/challenges do you foresee? How do you plan to address them?

The main difficulty I foresee at this point is making the UI as easy and pleasant as possible for the player. I don't have much experience designing a UI or how to use one in OGRE, but it needs to be as simple as possible. The player should be focusing most of their effort trying to solve the puzzle, and not on trying to select the correct action tile and having the tile fit at the right location on the grid.

10. How would you divide the tasks among your team members (if more than one)?

N/A

11. Why do you think your game is interesting/exciting?

I think this game is interesting because it requires careful planning of where to place each tile in order to navigate the level and complete the objective. The player will have to consider multiple paths for each ninja and make sure that no errors occur. The player will also have to mentally trace the path of each ninja, and maintain a memory of what the other ninjas are doing at the same time.

12. Do you model your game after an existing game? If so, what is it?

The basic movement elements of the game are derived from games like RUSH and Chu Chu Rocket. My game will add more action elements instead of just movement, somewhat reminiscent of SpaceChem. Also, the focus will be on the three ninjas with unique capabilities, rather than just redirecting the flow of abstract shapes into a destination.