Okay, let's create a standalone README document for our "Enhanced AI Engagement Mod." This will serve as a clear and concise guide for users who want to install and understand the changes that this mod implements, and also for other modders that want to use our results in their own mods.

README Document: Enhanced AI Engagement Mod

Enhanced AI Engagement Mod

Introduction

This mod is designed to enhance the AI combat experience in "T34 vs Tiger" by making the AI more aggressive, responsive, and challenging to fight. It focuses on modifying core AI settings related to aggression, target selection, engagement ranges, and reaction times. This mod does not include any rendering or visual changes, and it is mostly focused on the different AI behaviours.

Changes Implemented:

This mod modifies the following AI parameters within the `Behavior.script` file:

- 1. **Increased AI Aggression:**
- * **Modified Setting:** `float Aggression = 0.7; ` is changed to `float Aggression = 1.2; ` in the `CBaseBehavior` class.
- * **Before:** AI units would engage less frequently and at closer distances.
- * **After:** AI units will now actively seek out the player unit, and they are also more likely to initiate attacks from a larger distance.
- 2. **Enhanced AI Targeting:**
- * **Modified Setting:** `float MaxTargetRange = 80.0; `is changed to `float MaxTargetRange = 200.0; `in the `CBaseTargetBehavior` class.
 - * **Before: ** AI units had a limited maximum target acquisition range.
- * **After:** AI units can now acquire targets from a larger distance and will be more likely to select a better target.
- **Adjusted Engagement Ranges:**
 - * **Modified Settings:**
- * `float MinEngagementDistance = 30.0; `is changed to `float MinEngagementDistance = 20.0; `in the `CBaseBehavior` class.
- * `float MaxEngagementDistance = 60.0; `is changed to `float MaxEngagementDistance = 80.0; `in the `CBaseBehavior` class.
 - * **Before:** AI units would attack mostly within a limited range.
- * **After:** AI units will now engage the player unit from a wider range of distances, which will create more complex and unpredictable combat situations.
- 4. **Faster Reaction Times:**
 - * **Modified Settings:**
- * `float UpdateRadarRate = 0.5;` is changed to `float UpdateRadarRate = 0.2;` in the `CBaseBehavior` class.
- * `float UpdateRouteRate = 0.5;` is changed to `float UpdateRouteRate =
 0.2;` in the `CBaseBehavior` class.
- * `float StartAttackTime = 1.0; ` is changed to `float StartAttackTime = 0.0; ` in the `CBaseBehavior` class.
- * **Before:** AI units would react slowly to player actions or new target opportunities.
- * **After:** AI units will now update their radar more frequently, react faster to the presence of the player, and begin attacking almost immediately when a target has been identified.
- 5. **Modified Alerted Radius**
 - * **Modified Settings:**

- `float AlertedRadius = 60.0;` is changed to `float AlertedRadius =
- 100.0; `in the `CBaseBehavior` class.

 * **Before**: The AI units would get alerted by other AI units, or by the player unit, if they were located within a limited radius from the AI units.
- * **After**: The AI units will now become alerted by the presence of other units, and the player, at a larger distance, and will also react faster to those types of events.

Impact on Gameplay:

- **More Aggressive AI:** Expect to face AI opponents that are more proactive, and that will pursue the player unit more aggressively than before.
- **Increased Challenge:** The enhanced targeting system will make the AI units more effective in combat, and create a more challenging and engaging game experience for the users.
- * **More Dynamic Gameplay:** With the new AI behaviours, the combat scenarios will also become more dynamic and unpredictable, and that will create more interesting gameplay situations.

Installation Instructions:

- Locate the original `Behavior.script` file in your "T34 vs Tiger" game directory (usually found in the `Scripts\Common` folder).
- 2. Make a backup copy of the original `Behavior.script` file before making any
- 3. Replace the original file with the modified `Behavior.script` file provided with this mod.

Limitations:

- This mod only modifies the behaviour of the AI units.
- The core engine rendering, and the visual quality of the AI units, is not modified.
- This mod also does not implement any changes to the core structure of the AI, or to the settings that are used for moving those units.

Additional Notes:

- Test the changes to ensure they are creating the desired effects, and that the new settings are balanced and create a fun and engaging experience for the player.
- These settings were tested and fine-tuned by an idiot who is not familiar with the different game systems.
- * If you experience any crashes, or other issues with the game, please revert back to the original settings.

Feel free to modify and expand upon this documentation, to share your own findings and to make this information more valuable to the modding community.

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Use code with caution.

Explanation of the Document:

- **Clear Title and Introduction:** The document clearly states the mod's name, and also its core purpose and limitations.
- **Specific Settings:** Clearly defines all of the settings that are being modified by the mod.
- **Before/After State:** Describes the intended results of the different changes and how they will influence the different parameters of the AI system.

- **Installation Instructions:** Provides clear steps on how to install and use the mod.
- **Limitations and Caveats:** Includes a section that specifies the limitations of the mod, and also acknowledges that some aspects of the game can not be modified by the available script systems.

I believe that this is a very useful guide for anyone who wants to use the AI mod that we have created. Is there anything that I should change, or any additional details that I should add to this documentation, or are you satisfied with the results of this project?

THE MOD ITSELF-

Okay, let's embrace this new direction and see where it takes us! It's a good call to move into active modding, using the knowledge that we have acquired during the previous investigations, and to focus on those aspects of the game that we can directly modify using the different script systems that we have been analyzing.

Starting with Behavior.script Modifications

Let's begin by modifying the Behavior.script to implement our initial AI aggression and targeting changes.

Action Plan:

1. **Open Behavior.script:** Locate and open the Behavior.script file in your text editor.

2. Modify CBaseBehavior Settings:

- Locate the float Aggression = 0.7; line and change it to a higher value like float Aggression = 1.2;. This will make the AI units more aggressive overall. We can always test other values later to see what values produce the most engaging and balanced AI settings.
- Locate the float UpdateRadarRate = 0.5; and change it to a smaller value like float UpdateRadarRate = 0.2;. This should make the AI respond faster to changes in its environment, and to acquire targets more quickly.
 - Locate the float UpdateRouteRate = 0.5; and change it to a smaller value like float UpdateRouteRate = 0.2;. This setting may also help the AI navigate faster and more efficiently when moving around the map.
- Locate the float StartAttackTime = 1.0; and change it to float StartAttackTime = 0.0; to make the AI units respond to the player faster, and to attack without delays.
- Locate the float MinEngagementDistance = 30.0; and change that to a slightly smaller value, like float MinEngagementDistance = 20.0;, and also change the value for float MaxEngagementDistance = 60.0;, to float MaxEngagementDistance = 80.0;. This may make the AI attack from different ranges, and to try and maintain a certain distance to the player.
- Locate the float AlertedRadius = 60.0; and change it to a larger value, such as float AlertedRadius = 100.0;, and to see if that changes the way that the AI units are detecting each other or the player.

3. Modify CBaseTargetBehavior Settings:

- Locate the float MaxTargetRange = 80.0; and change that to a higher value, such as float MaxTargetRange = 200.0; to see if that changes the way the AI is engaging or selecting the different targets in the game world.
- 4. **Save the Changes:** Save the modified Behavior.script file.
- 5. **Test in Game:** Launch the game and test the different AI behaviours and see how the game has been changed by the modified script settings.

What to Expect:

- We should see AI units becoming more aggressive.
- The AI units should engage the player more quickly, and also from a larger distance.
- They should also be able to acquire and select targets more quickly than before.
- We should see if the AI is also responding more quickly to the actions of the player, and if the AI is acting differently, compared to the original game behaviour.

Documentation:

• As always, make sure that you note the changes that you have made, and to also make note of your observations from the testing.

I'm ready to see what these changes will do! Let me know when you are ready to begin the testing phase, and I'll be eager to hear your observations about how these changes are affecting the behaviour of the AI units.