

ABSTRAK

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Skripsi

Variatif AI untuk perilaku NPC di Game Horror dengan menggunakan metode Behavior Tree

Kebanyakan AI untuk NPC dalam *game* saat ini tidak memiliki banyak kemampuan khusus yang membuat mereka unik, permainan yang monoton yang hanya berfokus pada plot, tidak mengharuskan pemain untuk memikirkan solusi dan hanya membuang-buang waktu. Solusinya adalah, game bernama “Dark Dream” yang dikembangkan di Unreal Engine 5 dengan menggunakan metode *Behavior Tree*. Kelebihan dari *Behaviour Tree* adalah modularitasnya, struktur hirarkis yang lebih mudah dibaca, dan kontrol eksplisit terhadap urutan, fallback, dan interupsi. Pendekatan ini meningkatkan keunikan setiap NPC, menyetarakan plot dan permainan, serta membatasi jumlah bantuan yang bisa didapatkan oleh Pemain.

Berdasarkan hasil survei yang diperoleh, 81,8% merasa game ini sulit. 90,9% setuju dan sangat setuju bahwa UI mudah dipahami, 81,8% setuju bahwa UI sangat mudah digunakan, 81,8% setuju bahwa fungsi dalam game mudah dipahami dan digunakan, dan 90,1% percaya bahwa Dark Dream adalah game yang luar biasa. Berdasarkan hasil tersebut, cukup beralasan untuk menyatakan bahwa metode *Behaviour Tree* mampu menyelesaikan masalah AI NPC yang berbeda dalam artian memiliki kemampuan yang bervariasi, yang membuat sebuah *game* tidak menjadi membosankan dan berulang-ulang.

Kata Kunci:

AI, NPC, *Behaviour Tree*, kemampuan, *game*, Unreal Engine 5

ABSTRACT

Ricky

Undergraduate Thesis

Variative AI for NPC behavior in Horror Games using Behavior Tree method

Most AI for NPCs in games nowadays does not have many distinct particular abilities that make them unique, monotonous gameplay that is simply focused on plot, not requiring the player to think about a solution and merely wasting time. The solution is, a game named “Dark Dream” developed in Unreal Engine 5 using the Behavior Tree method. The merits of Behaviour Tree include its modularity, hierarchical structure for easier reading, and explicit control over sequence, fallbacks, and interrupts. This approach enhances NPC uniqueness, equalizing plot and gameplay while reducing player assistance.

Based on the survey results obtained, 81.8% feel the game is tough. 90.9% agree and strongly agree that the UI is simple to grasp, 81.8% agree that it is extremely useable, 81.8% agree that the in-game function is simple to grasp and use, and 90.1% believe that Dark Dream is an excellent game. Based on the results, it is reasonable to state that the approach Behaviour Tree is capable of resolving the problem of AI NPCs being distinct in the sense of having varied abilities, which is what keeps a game from getting dull and repetitive.

Keywords:

AI, NPC, *Behaviour Tree*, abilities, *game*, Unreal Engine 5

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