SYNCHRONIZE OF INTELLIGENT VIRTUAL CAMERA
WITH AUTONOMOUS LEVELING DYNAMIC
ON TURN-BASED STRATEGY GAME

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ABSTRACT

Virtual camera is main part in a game, so that events and objects in a virtual environment can be displayed on the screen scene. The problem is when an significant event occur, the virtual camera is not able to display virtual object and environment which part should be displayed on the screen scene. So there are no difference between significant event and no significant event. For that, it needs synchronization between the virtual camera control technique with important event that happened in the game.

In this research, to create synchronization between the virtual camera control techniques with significant event that happened in the game is addressed by Behavior Tree, a simple data structure that provides graphical representation and formalization of complex actions. Research conducted on the game Turn-Based Strategy (TBS) which has an autonomous leveling dynamic systems, it means that increasing level of game is not always same from one level to the next level. Important event that happened in the game TBS include event when the game begins, the player gets a turn, player shoot the opponent, attacking player, occur collision and health point (HP) of player in a discharged condition. And virtual camera control techniques are moving, zooming, focusing, chasing, and shaking.

From the experimental results and the questionnaires were distributed, respondents said that techniques of virtual camera control with current events of the game starts is 100 percent synchronous, when the player gets a turn 96 percent of sync, as opposed to 83 percent shooting players in sync, while 86 percent synchronous attacking players, during an impact among the players 100 percent in sync, and when the player runs out of events HP value 93 percent of respondents said synchronous.

Keywords: intelligent virtual camera, behavior tree, turn-based strategy game, autonomous leveling dynamic.
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