Simplex RPG Engine

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Purpose: Game development without a specialized set of tools requires the developer to write interface between the game logic and the hardware layer. Using various technologies and multiple programming languages, I wrote game engine solving several common game development tasks and therefore providing the end user with a faster and easier development flow. Procedure: The integrated development environment for the game engine was written using c#, providing several editors and specialized tools; such as ‘Visual Dialogue Editor’. As for the scripting language, my own derivative of GML was developed, extending the base language with modern constructions and providing access to low level functions with libraries developed in c++. Results: Open source game engine that has been used commercially by several companies from multiple countries. The content management system was developed using asp mvc .net as an additional engine module, allowing for an easily deployable board bulletin. The engine connected high and low-level programming languages as a way of keeping the end user comfortable while still providing high performance. The model of components used in the engine provides solutions for a wide range of problems such as, a physical engine, goal oriented artificial intelligence/finite states machine template, seamless user interface transitions and much more. Conclusions: This project presents an alternative to most commonly used development tools in the field of 2D games development. The engine also contains a database of graphical and sound resources, which the end user can contribute to; further improving their range of covered development needs.

Awards Won: