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ZippApp Game Platform

Abstract: Currently, Windows 8 and Windows Phone game development is lacking a template architecture that can allow novices to quickly build their first games. Using JavaScript and HTML5, a 2-dimensional game engine is made to allow such novices or non-developers to create games for Windows 8 and Windows Phone. With the template, tools and instructions provided, a game engine can be linked with Microsoft's ZipApp service as three templates, each as a different game genre for the user to create.

The game engine based on MelonJS requires minimal coding to get started, and uses WYSIWYG editor 'Tiled' for easy creation of game levels and menu screens. Tiled is an open source, free to use tile editor for use for making games. It has been extended to not only create tile maps, but also spawn objects, add lights, add enemies, alter camera properties, add finish lines and much more.

Three templates for learning games development with Visual Studio using the ZipApp metaphor were created to demonstrate this capability. Full documentation and tutorials were made to assist the user with these templates through the game creation process.

Thorough testing with unit tests and various end users which meet the criteria were conducted to ensure a well-polished product.