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## **СУЧАСНІ ДОСЛІДЖЕННЯ КРОСПЛАТФОРМЕРНОЇ РОЗРОБКИ ІГОР З ВИКОРИСТАННЯМ GMS**

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## **CURRENT RESEARCH OF CROSS PLATFORM GAME DEVELOPMENT USING GMS**

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Ключові слова: GameMaker: Studio, крос-платформне програмування, розробка ігор.

Key words: GameMaker: Studio, cross-platform programing, game development.

In recent years, due to the further development and improvement technology a lot of game developers are looking for some new way to creating cross-platform games. The present report analyses information about the latest game development system GameMaker: Studio.

GameMaker: Studio (originally named Animo and later Game Maker) is a proprietary game creation system developed by Mark Overmars in the Delphi programming language. GameMaker allows users to design a cross-platform video game by means of drag and drop or a scripting language known as Game Maker Language, which can be applied to develop more advanced games that could not be created just by the drag and drop features. GameMaker allow consumers to easily develop video games without having to learn a complex programming language such as C++ or Java through its proprietary dragand drop system, in the hopes of users unfamiliar with traditional programming to create games by visually organizing icons on the screen. These icons represent actions that would occur in a game, such as movement, basic drawing, and simple control structures

GameMaker primarily runs games that use 2D graphics, allowing the use of limited 3D graphics. Game Maker Language (GML) is the primary scripting language that is interpreted similarly to Java's Just-In-Time compilation used in GameMaker, which is usually significantly slower than compiled languages such as C++ or Delphie. The syntax of GML borrows aspects from other languages such as C, C++ and JavaScript, giving it some syntax features of object-oriented programming but is not fully featured in that custom structs and classes are not possible. GameMaker allows for redistribution on multiple platforms. The program currently builds for 9 platforms: Windows, Windows 8, MacOS X, Ubuntu, HTML5, Android, iOS, Windows Phone 8 and Tizen.

To conclude with, we note that scientific and technological progress in the coming years will require upgrading of existing and creating new game development systems, so it will be possible to predict many interesting and important innovations in IT-technology.

*The report draws on web-sites:*

<http://www.desura.com/engines/game-maker>

<http://gamemakerblog.com/2011/06/18/work-on-official-gamemaker-obfuscator/>