延伸支援3D遊戲的視覺化編輯工具到手機裝置上的呈現之研究

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摘要

最近幾年，發展數位內容成為一股新趨勢，尤其以遊戲特別受到重視。韓國就是一個靠發展遊戲而獲益不少的例子之一。而遊戲的開發平台也從遊戲主機、個人電腦上，逐漸朝向行動裝置發展。行動裝置，如手機、PDA，在近幾年來的發展也逐漸擺脫以往給人能力有限的映像，特別是手機技術的成長，除了最基本的通信能力，現在也可以在手機上播放音樂或是影片，目前的手機甚至可以做到播放3D的多媒體動畫。因此，假設可以利用一個良好的輔助開發環境來幫忙開發手機上的3D遊戲的話，相信對搶攻手機遊戲市場將會有非常大的幫助。

本實驗室過去曾經對3D角色扮演遊戲進行深入的分析研究，最後提出了以視覺化編輯環境為基礎的遊戲編輯器－3D角色扮演遊戲編輯器。本論文則是將遊戲編輯器原有的功能延伸，最終的目的就是讓遊戲編輯器產生的遊戲可以在手機的平台上運作。在論文中將會探討到在個人電腦環境中，與手機環境中，遊戲在執行上會遭遇到的差異，並且針對這些差異，提出解決辦法克服這些差異點，讓遊戲編輯器所產生的遊戲可以在手機上運作。並且提供藍芽連線的機制，讓玩家可以透過藍芽進行遊戲的連線，達到增加遊戲樂趣的目的。

The extension of a Visual Authoring System to support 3D game presentation under mobile devices

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Abstract

The development of network games has become more and more important in the digital content business. Network games will become the mainstream of all computer games in the future. Recently, the porting of network games onto the mobile devices has been paid great attentions due to the most conspicuous improvement on the technology among mobile devices. Thus, the add-on value, playing 3D anime on the mobile devices, has become possible now. In this thesis study, we will extend our exiting Visual Authoring System to support 3D game presentation under mobile devices

The goal of this thesis is to extend the ability of the exiting 3D RPG generator to support 3D RPG games creation and presentation on Mobile devices. Specifically, we compare the environment of 3D game generator under personal computer and under mobile device first, and then try to identify differences in the executing environment under mobile device. Next, we propose solution to overcome the differences such that the 3D game generated by the 3D visual authoring tool can be presented under the mobile device. The network capability in our solution relies on the Bluetooth technology to support communication during the paying of the network game. Examples are used to demonstrate the feasibility and applicability of the proposed approach.