Specification of Competency Standards
for the Information & Communications Technology Industry
Unit of Competency

Functional Area - Operations Management

Title	Develop patch system
Code	107938L4
Description	This unit of competency applies to all Digital Media Technology (DMT) practitioners who are involved in game programming and maintenance. A game patch system provides periodic updates, rectifications and enhancements to existing programs in use. This UoC is concerned with the development of such game patch system and all its related tasks and work.
Level	4
Credit	3

Competency	Performance Requirements
	1. Knowledge for game programming and related patch system
	
	• Master basic programming knowhow, concepts and techniques
	• Fully comprehend the list of the game programs developed and used by game players
	• Possess good understanding about those programming techniques applicable to games
	• Master popular languages commonly used for game programming
	• Possess good understanding about the nature and requirements of a patch system for game programs
	• Fully understand the organisation's specific requirements and guidelines towards the game patch system
	• Possess the ability for problem identification and solutions recommendation
	• Comprehend the mechanism and tools for establishing and maintaining a game programs patch system
	
	2. Develop a patch system for game programs
	
	• Solicit instructions and requirements from management or the game development team regarding the game patch system to be developed
	• Acquire the hardware (if necessary), software tools and other resources required for the patch system development
	• Design a patching system for the organisation according to requirements, and make considerations for but not limited to the following:
	    o Evaluate the necessity in creating a patch after reviewing players' feedback
	    o Evaluate the necessary manpower and resources for patches creation
	    o Timing and frequency for releasing patches
	    o Other considerations such as file size, download speed, etc.
	• Develop tools for various checking tasks, such as:
	    o Checking file in the source
	    o Update (including add, modify and delete) files in the source
	    o Client version checking, etc.
	• Develop tools for other patch handling tasks, such as:
	    o Create patches
	    o Pack changes
	    o Control patch release
	    o Patch deployment, etc.
	• Perform Hypertext Transfer Protocol (HTTP) or File Transfer Protocol (FTP) based processes for downloading and applying patches
	• Keep an accurate and detailed logging on the organisation's patch system development, for reporting to management and subsequent reviews

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	3. Exhibit professionalism • Always develop the game patch system based on new requirements and problems reported / observed • Always consider the services to game players as the first priority issue in the course of game patch system development
Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: • Develop an effective game patch system for the organisation within required time frame and budget constraints; and • Develop a patch system that provides good support to the game programs already launched
Remark	