

## Assessment Criteria

### Full Time Courses – 1<sup>st</sup> Year Advanced Diploma

CIP Code 36.0103 Advanced Diploma in Professional Game Development - Programming

## Title: C# Tool / Sprite Map Generator (ADGP 125)

Start Date: 04/06/15

Assessment Date: 05/12/15

### General description

A sprite map (also called sprite sheet, tiled sprite, sprite Atlas) is a collection of several smaller, individual image files combined into a single file. Sprite map concept facilitates better memory usage and improves game loading performance.

You are to design and build a sprite map generation tool using visual studio 2010 C# / WPF tools and libraries. You must be able to load several individual sprite (image) files; store them in appropriate C# data container(s) and apply suitable programming algorithms to manage and sort the image files in

a suitable order and finally generate the required sprite map.

You must demonstrate the ability to use an integrated development environment (IDE), C# language utilities, multiple source files and appropriate data source, to automate and to build the sprite map generation software application.

You must demonstrate the competency to debug and to test the application using suitable debug tools and unit testing techniques in visual studio 2013.

### Knowledge and skills

Listed here is the knowledge and skills you'll be learning and on which you will be assessed.

- Skills in application of another programming language (C#) in visual studio IDE
- Skills in requirement analysis and design of data structures and algorithm usage
- Skills in creation of technical documentation and brief
- Ability to follow a design brief and create code structures as per specifications
- Carry out testing on software codes and analysis of test results
- Develop object-oriented (OO) graphic user interfaces based on advanced tools, libraries and algorithms
- Design and develop external XML data source and linkages

### Evidence specifications

This is the specific evidence you must prepare for and present on assessment day to demonstrate you have competency in the above knowledge and skills. The evidence must conform to all the specific requirements listed below.

1. Compiled Software application
2. Project solution and folders
3. Analysis and Design Documentation
4. XML Design Specifications
5. Test and GUI documentation
6. Help and User Guide

### Your roles and responsibilities as a candidate

- Understand and feel comfortable with the assessment process
- Know what evidence you must provide during your assessment
- Take an active part in the assessment process
- Be ready for the assessment at the nominated time

## Assessment instructions for candidate

### METHOD OF ASSESSMENT

Assessment will be conducted by you personally presenting evidence that demonstrates your competence in a short interview with your assessor. The evidence you must prepare and present is described above in this assessment criteria document. Assessments will be conducted on a specific day recorded above in this assessment criteria document.

### ASSESSMENT CONDITIONS

You will have approximately 10 minutes to present your evidence that demonstrates your competence. It is your responsibility to be prepared. If you have forgotten something or made a small mistake you may correct it, however the assessor may choose to assess other candidates who are better prepared and return to you if time permits. Upon completion of the assessment you will be issued with feedback and a record of the assessment, which you will need to acknowledge that you have accepted the result. If you are absent on the nominated assessment day (without prior agreement or a sufficient documented excuse) you will be assessed as not yet competent.

### GRADING

The assessment you are undertaking will be graded as either *competent* or not *yet competent*.

### REASSESSMENT PROCESS

If you are assessed as being not yet competent you will receive clear, written and oral feedback on what you will need to do to

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achieve competence. You will have one (1) week to prepare your evidence for a reassessment. You will be given only one reassessment opportunity. If you are unsuccessful after your reassessment you will be required to attend an intervention meeting with your Head of School to discuss your progress.

#### REASONABLE ADJUSTMENTS

We recognize the need to make reasonable adjustments within our assessment and learning environments to meet your individual needs. If you need to speak confidentially to someone about your individual needs please contact your teacher.

### Assessment rubric

This table defines exactly what is required to be successfully deemed competent.

Evidence	Definition of Competent
1. Compiled Software application	Build a C# GUI software application A generated sprite map in "png format". An XML external file.
2. Project solution and folders	Full project folder without unnecessary files and folders.  Create a release build within your project folder (the folder should be created automatically when you build it in release mode). Make sure all the necessary files and folders are also within that folder and that your game can run standalone: <ul style="list-style-type: none"> <li>• Dlls</li> <li>• Images</li> <li>• Sounds</li> <li>• Exe</li> </ul> No build errors or warning in the project. The project must be able to be built without having settings changed.  All header files and functions definitions commented with the following where necessary: <ul style="list-style-type: none"> <li>• Dlls</li> <li>• Purpose</li> <li>• Parameters</li> <li>• Intended use</li> <li>• Return type</li> </ul> All code that is not straight forward is to be clearly commented. Create a release build within the project folder. Make sure all the necessary files and folders are also within that folder.
3. Analysis and Design Documentation	A PDF file documenting the analysis and design of your software UI and application: <ul style="list-style-type: none"> <li>• Design specifications of GUI</li> <li>• UML class diagram</li> <li>• Data structure to store application data</li> <li>• Data algorithm design specifications</li> </ul>
4. XML Design Specifications	A PDF file documenting the design specifications of XML elements.

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5. Test and GUI documentation	A PDF file documenting test plans, GUI test scripts, test results and resolution.
6. Help and User Guide	A PDF file documenting help features and user guide information on the use of the GUI application.