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

Functional Area - Operations Management

Title	Create duplicate objects with procedural animation
Code	107958L3
Description	This unit of competency applies to all Digital Media Technology (DMT) practitioners who are involved with performing animation production. There are many cases where multiple instances of same or similar objects are required in an animated scene such as a flock of birds, 4 legs of a table, etc. Creating large number of objects by hand is not only a tedious task but also quite tricky, at least if the animator would need to maintain perfect spacing, angles, etc. among all the objects. Fortunately, there are tools for duplicating objects and with procedural animation, multiple instances can be animated.
Level	3
Credit	3
Competency	Performance Requirements 1. Knowledge for creating duplicate objects with procedural animation - Possess good knowledge of animation techniques - Possess good knowledge of procedural animation programming - Possess good knowledge of object duplication techniques - Good experience in operating animation software and object duplication tools 2. Create duplicate objects with procedural animation: - Comprehend the animation requirements, such as: - Number of instance of the same object - Motion requirements and parameters of the objects - The type of procedure animation technique to use (depends on the object that is being animated), such as: - Mechanics simulation for rigid bodies and shapes - Inverse kinematic for character movements - Chaotic functions for textures - Select animation software/tools that provide the functions for duplication of objects. The original object may be created with a different software or tool and imported to a different tool for the duplication process - Select the object in the scene and select the duplication function needed to create multiple copies of the object. For example: "Linked Duplication" – all parameters of the parent object are linked with the child object i.e. parent and child, looks, and movements are identical and in unison "Partial Duplication" – only certain parameters are linked, such as texture, colour, etc. Others parameters can be independently set, meaning the object looks alike but motion and others can be different "Unlinked Duplication" – every parameter except the object - Adjust or reprogram the parameters of individual objects until the required effects are achieved 3. Exhibit professionalism - Be updated with current animation technologies and techniques
Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to:

Functional Area - Operations Management

	• Select the correct procedural animation technique to create duplication of objects for animation work • Use the correct duplication function provided by the tools to perform the duplication of objects • Adjust or program the objects to create the required animation effects for the production work
Remark	