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

Functional Area - Operations Management

Title	Create character model
Code	107952L3
Description	This unit of competency applies to all Digital Media Technology (DMT) practitioners in the animation production work, particularly in 3D animation production. This UoC concerns creating a character model for mainly 3D animation from scratch, though it doesn't mean all character models are created from scratch. In fact many animators use existing models as a basis or use certain parts to create their new models.
Level	3
Credit	3
Competency	Performance Requirements 1. Knowledge for creating character model - Possess literacy skills that can read and interpret relevant sources of information such as: the script, animatic characters and color model, soundtrack, etc. - Possess basic knowledge of storyboarding or thumbnail drawing - Possess good knowledge of different modelling representation, including: polygon modeling, curve (mathematical) modeling, digital sculpting, etc. - Possess detail knowledge on operating character modelling software - Possess good animation skills 2. Create character model: - Comprehend the script/storyboard/character sheet/animation brief to understand the story and requirements of the animation - Preparing for modelling: - Select suitable modelling software - Acquire modelling materials such as: - Scan (laser) or import character image (front, sides and back) - From scratch – layout each vertex and draw all polygons for the model - Acquire details about the model, such as but not limited to the following: - Finger count (full finger or mitten type) - Polygon count - Level of details required - Develop the model's body, leg and arm with relevant software - Extrude the base of leg cylinder and adjusting vertices to create the feet of the model - Use a cube and adjusting vertices to fit the general shape of the head of the reference character. Once done, weld the head to the neck which was created from another cylinder. Apply similar techniques to create general shape of other parts of the model and welding to the body - Once created the general shape of the model, using splitting of polygon and work with lines of edges to put finer details to different parts of the model until it matches the reference character - Attach the rig to the mesh to perform simple test and identify any imperfection of the model - Save or export the mesh character model for use or next workflow stage of production work. The final pose follows industry practices. For example: - Arms - Out to the sides but slightly lowered (about 35 degrees) - Elbows - Should be bent inwards at an angle of about 40 degrees

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	▪ Hands and Fingers - Should be in a relaxed position with the fingers slightly bent. The palms should be facing forwards
	    ▪ Legs - These should be slightly bent, as if the character is in a slight crouching position
	    ▪ Face - The head should be in a rest pose, closed mouth and open eyes.
	
	3. Exhibit professionalism
	
	    • Committed to produce high quality animation production
	    • Apply industry best practices to create mesh characters for animation work

Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to:
	
	    • Fully comprehend the requirements of the character model
	    • Operate the animation software to generate new polygons and using character reference materials to create the general shape of the model. Then manipulate the model polygon to add finer details of the model until it satisfies the requirement
	    • Complete and package the character model in the final pose position that comply with industry standard for next stage of production work

Remark	