

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

Functional Area - Operations Management

Title	Perform motion capture
Code	107948L4
Description	This unit of competency applies to all Digital Media Technology (DMT) practitioners who perform animation using motion capture technique in workplace. Motion capture is the process of recording actors' movements and recreating them on digital character models. The practitioner takes a hands-on supervisory role who actively conducts the motion capture animation session. This UoC can also be applied to games and cinematic production.
Level	4
Credit	4
Competency	<p>Performance Requirements</p> <p>1. Knowledge for performing motion capture animation</p> <ul style="list-style-type: none"> • Possess literacy skills that can read and interpret relevant sources of information such as: the script, animatic characters and colour model • Possess project and risk management skills that can complete project on schedule, without safety issues and within budget • Possess excellent knowledge of motion capture animation techniques with good knowledge of motion capture software tools and applications • Well conversed with different methods of motion capture and required equipment including its advantages and disadvantages <p>2. Perform motion capture animation</p> <ul style="list-style-type: none"> • Comprehend and clarify the motions/actions work requirement, from: <ul style="list-style-type: none"> ○ Project/Production briefs ○ Storyboards and visual references ○ Design specification • Plan and prepare the motion capture shoot and subsequent production, including but not limited to the following: <ul style="list-style-type: none"> ○ Create list of required motions/actions: shot name (identification), duration, priorities, number of actors, etc. ○ Identify the best motion capture technique and tool for capturing the required motions/actions. Example: <ul style="list-style-type: none"> ▪ Organin Motion - Motionstage ▪ Vicon - Blade ▪ Ipi soft - Ipi motion capture ▪ Autodesk - motion capture ○ Determine the required skills of the crew and assemble the team for the motion capture sessions ○ Plan schedule and order the shooting running sequence to maximise performers' efficiency ○ Determine required facilities, equipment (cameras, lighting, computer systems, software, etc.), shooting environment, etc. ○ Gather reference materials (video or written brief) that can show the motions/actions required from the shoot ○ Arrange props, shooting schedules, performers, etc. ○ Prepare suits, marker and other equipment for the shoot • Perform capture of the motions/actions with following methods: <ul style="list-style-type: none"> ○ Marker system <ul style="list-style-type: none"> ▪ Optical tracking systems (passive and active)

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	<ul style="list-style-type: none"> ○ Marker less system <ul style="list-style-type: none"> ▪ Tracking computer vision systems ○ Non optical method <ul style="list-style-type: none"> ▪ Mechanical motion, Magnetic systems, Inertial system ● Edit the motion captured data to clean imperfection, alterations and enhancement ● Use appropriate motion capture animation tools to retarget/map the motions to the characters and perform required animation. Example of tools: Unity, Motionbuilder, Xsens MVN, etc. ● Save and package the animations and motion capture data for use at next stage of production <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> ● Observe all safety procedures during motion capture sessions to ensure no unexpected safety issues occurred ● Apply industry standards and best practices for motion capture of required motions/actions that can be used for animation production in the most efficient manner
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> ● Fully comprehend project requirements and form a complete list of motions/actions required to be captured ● Plan and prepare the motion capture sessions and activities without any impediments ● Complete the capturing of all required motions/actions and clean the captured motion data on schedule ● Map the motion-captured data characters on animation tools and complete required animations
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