

**SKILLS FRAMEWORK FOR MEDIA  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

<b>TSC Category</b>	Game Design					
<b>TSC Title</b>	Game Production Optimisation					
<b>TSC Description</b>	Design asset pipelines and production workflows to enable the efficient integration of art and animation and enhance game development efficiency					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
			<b>MED-GDP-3002-1.1</b>	<b>MED-GDP-4002-1.1</b>	<b>MED-GDP-5002-1.1</b>	
			Design customised tools for asset creation and asset pipelines to support game development	Design asset pipelines and asset production workflows to enable the integration of art assets with programming for game development	Drive the achievement of a unified artistic and technical vision of the game through the integration of the artistic and technical aspects of game development	
<b>Knowledge</b>			<ul style="list-style-type: none"> <li>Principles of computer graphics</li> <li>Principles, concepts and objectives of asset pipelines</li> <li>Principles of linear algebra, binary matrices, trigonometry and vector mathematics</li> <li>3D art and animation creation tools</li> <li>Scripting languages and techniques</li> <li>Features and functionalities of game engines and their graphic development capabilities</li> </ul>	<ul style="list-style-type: none"> <li>Design of asset pipelines for art and animation</li> <li>Customisation of standard graphics tools</li> <li>Technical drawing</li> <li>Hardware architecture for target platforms</li> <li>Game development processes</li> <li>Asset production workflows for game development</li> <li>Scripting languages and techniques</li> </ul>	<ul style="list-style-type: none"> <li>Vision, purpose and objectives of the game</li> <li>Industry standards and upcoming technologies in graphics development for games</li> <li>Hardware architecture for multiple platforms</li> <li>Challenges of game development for multiple platforms</li> <li>Game development processes</li> <li>Game asset workflow design and optimisation</li> </ul>	
<b>Abilities</b>			<ul style="list-style-type: none"> <li>Interpret custom requirements of asset creation for specific projects to understand scope of modifications required to existing or standard tools</li> <li>Utilise scripting tools and techniques to execute customisations in standard asset creation</li> </ul>	<ul style="list-style-type: none"> <li>Analyse game design documents to understand the artistic vision of the game and the technical expectations from the art and animation assets</li> <li>Ideate asset creation and pipeline requirements in alignment with the technical goals</li> </ul>	<ul style="list-style-type: none"> <li>Analyse the technical goals of the game for art, animation and programming to understand the pipeline requirements for various kinds of game assets</li> <li>Establish guidelines and conventions for documentation of pipeline designs</li> </ul>	

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			<p>tools for specific project requirements</p> <ul style="list-style-type: none"> <li>• Liaise with tools development team for the development of tools required for the asset pipelines</li> <li>• Liaise with technical development teams to support the integration of art assets with game programming</li> <li>• Support the optimisation of existing pipeline tools through designing customisations and changes to tool design</li> <li>• Provide support and maintenance for asset pipelines and workflows</li> <li>• Troubleshoot pipeline tools and workflow inefficiencies</li> </ul>	<ul style="list-style-type: none"> <li>• Design customised asset pipelines to meet the needs of specific projects</li> <li>• Detail asset pipelines using technical drawings for the purpose of communication to the development team</li> <li>• Identify opportunities to utilise existing tools in asset pipelines</li> <li>• Determine the requirements for the development of new tools or customisation of existing tools to meet pipeline requirements</li> <li>• Oversee the creation of tools for asset pipelines</li> <li>• Set up the production workflow for asset creation teams</li> <li>• Optimise existing asset pipelines to meet project requirements</li> <li>• Resolve engineering and architectural challenges in asset production workflows</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse proofs-of-concept and prototypes</li> <li>• Take decisions on the adoption of new technology to meet the pipeline requirements</li> <li>• Direct the development resources to build pipeline systems and tools to support game development</li> <li>• Review pipeline systems to ensure that pipeline design matches the required standards of functionality</li> <li>• Review asset production workflows to identify and remove bottlenecks in terms of workflow inefficiencies</li> <li>• Liaise between technical and creative development teams to align expectations in terms of pipelines and workflows</li> </ul>	
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