

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

<b>TSC Category</b>	Network Technology Management					
<b>TSC</b>	Virtual Reality Application					
<b>TSC Description</b>	Employ the use of virtual reality technology in work-related applications, training and to support organisational decision-making in relation to new designs for products, work procedures, workspace layouts and other experiments					
<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>PRE-CTS-2002-1.1</b>	<b>PRE-CTS-3002-1.1</b>	<b>PRE-CTS-4002-1.1</b>		
		Operate virtual reality (VR) devices to interact with the simulated environment	Support development of virtual reality (VR) simulations by supplying work-specific information	Facilitate organisational decision-making through the use of virtual reality (VR) simulations		
<b>Knowledge</b>		<ul style="list-style-type: none"> <li>Organisational objectives related to the given VR simulation</li> <li>Working principles of VR</li> <li>Distinct differences between virtual reality (VR) and AR</li> <li>Types of VR systems and devices</li> <li>Correct usage of VR devices</li> <li>Common errors when using VR technology</li> </ul>	<ul style="list-style-type: none"> <li>Types of VR systems and available software</li> <li>Types of VR simulations and their applications</li> <li>Objectives of creating the given VR simulation</li> <li>Principles of user interface design in VR simulations</li> <li>Types of work-specific information relevant for building simulations</li> <li>Working principles of VR</li> <li>Distinct differences between virtual reality (VR) and AR</li> </ul>	<ul style="list-style-type: none"> <li>Organisational goals, and decision-making needs</li> <li>Types of VR simulations applicable to the organisation's decision-making needs</li> <li>VR simulation techniques</li> <li>Evaluation criteria to support decision-making based on VR simulation tests</li> <li>Distinct differences between VR and augmented reality (AR)</li> </ul>		
<b>Abilities</b>		<ul style="list-style-type: none"> <li>Identify the objectives of the VR simulation and the expected user interactions and behaviours</li> <li>Operate VR devices according to equipment specifications and instructions</li> <li>Interact with the simulated environments through VR devices</li> </ul>	<ul style="list-style-type: none"> <li>Identify work processes, equipment and other objects to be modelled in VR environments, aligned to the intended simulation objectives</li> <li>Translate work requirements and information into VR simulation parameters</li> <li>Specify user interactivity requirements to be incorporated into VR environments</li> <li>Advise VR environment creators on adjustments</li> </ul>	<ul style="list-style-type: none"> <li>Conduct simulations in VR environments to test feasibility of ideas before implementation in reality</li> <li>Employ appropriate measurements and criteria to evaluate simulations</li> <li>Determine need for re-testing and the necessary adjustments to the simulations</li> <li>Interpret output from VR simulations to identify relevant insights for</li> </ul>		

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			to enhance effectiveness of the simulations	decision-making processes		
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