

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

TSC Category	Network Technology Management					
TSC	User Interface Design					
TSC Description	Design user interfaces for machines and software, incorporating visual, technical and functional elements that facilitate ease of access, understanding and usage. This would involve adding, removing, modifying or enhancing elements to make the user's interaction with the product as seamless as possible					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			PRE-DES-3008-1.1	PRE-DES-4008-1.1		
			Identify functionalities and information flows to develop components of user interface prototypes, making tweaks to graphical user interfaces	Design the information architecture, process flow and user interface prototypes as well as graphical user interfaces		
Knowledge			<ul style="list-style-type: none"> Information flows in user interface design Key technical components in and supporting a user interface Basic methodologies in graphical user interface (GUI) development 	<ul style="list-style-type: none"> Design patterns and principles in psychology, navigation, visual interface and interaction Methodologies and critical components in user interface prototypes Methodologies and requirements of graphical user interface design and customisation Interpretation of usability test results Application user guide objectives and requirements 		
Abilities			<ul style="list-style-type: none"> Assemble functionality lists and needs required Identify information flows Develop components of user interface prototypes Design GUIs, according to guidelines and specifications, making tweaks where required Evaluate the effectiveness of user interface designs, according to the metrics set 	<ul style="list-style-type: none"> Determine features and functionalities, considering resource costs, feasibility and trade offs Develop information architecture and process flow of the application, in relation to the user Develop a prototype of the user interface based on established requirements Design graphical user interfaces of moderate 		

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			<ul style="list-style-type: none"> • Document changes or updates to software/applications' user interface design • Craft information content and materials for product user guides 	<p>complexity for IT products/applications according to endorsed specifications from the prototype, including elements that allow ease of access and usage</p> <ul style="list-style-type: none"> • Assess findings from usability tests/inspections, and make relevant refinements to the product's user interface • Enhance user guides to effectively implement new/revised user interface 		
Range of Application			<p>Types of software applications may include, but are not limited to:</p> <ul style="list-style-type: none"> • Mobile/Native applications • Augmented reality/Virtual reality applications • Web applications • Hybrid applications • Cloud applications 			