

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

TSC Category	Network Technology Management					
TSC	User Experience Design					
TSC Description	Conceptualise, project and make enhancement of the user's interaction and engagement with an IT product and/or service based on a robust analysis and understanding of the product and/or service's performance vis-a-vis the user's desired experience and outcomes. This involves creating wire frames to adequately guide and inform subsequent planning and development processes, and making enhancements to optimise the user's experience of the product and/or service					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		PRE-DES-2007-1.1	PRE-DES-3007-1.1	PRE-DES-4007-1.1		
		Translate key user experience concepts and guidelines into simple wireframes, proposing elements of aesthetics and accessibility that would impact the user experience	Analyse and understand the desired experience from target users of IT products and/or services, and develop solutions to address gaps in the overall user experience	Create user experience design concepts, develop user flow charts and drive modifications or enhancements to the product or service features		
Knowledge		<ul style="list-style-type: none"> Key principles of user experience Users' goals, motivations and tasks Elements of a wireframe 	<ul style="list-style-type: none"> Techniques for gathering and analysing user feedback Indicators of user experience Steps in the user interaction process Parts of a user flow chart Tests for software/application design Types of user response 	<ul style="list-style-type: none"> Design patterns and principles in psychology, navigation, visual interface and interaction Techniques for analysing the user experience Objectives, purpose and content of user flow charts and wire frames Technical components in user experience design Tests for technical compatibility and viability 		
Abilities		<ul style="list-style-type: none"> Define parts or steps in the user interaction process, as part of user flow chart development Translate user experience concepts into simple wireframes and general layouts Construct simple wire frames Make basic judgements on general layouts, aesthetics and accessibility that would 	<ul style="list-style-type: none"> Gather inputs and feedback from users on their needs and experiences with IT products and services Analyse user patterns and feedback from target users of IT products and services to understand the desired user experience and outcomes Identify performance levels and gaps between current level of user 	<ul style="list-style-type: none"> Visualise immediate user requirements and concerns when using applications Create user experience design concepts that are user-centred, through the understanding of user feedback and industry standards and/or trends Develop user flow charts and wire frames projecting the intended user experience, to guide 		

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		<p>impact the user experience</p> <ul style="list-style-type: none"> Document updates or changes to user flow charts and wireframes 	<p>experience and the desired user experience</p> <ul style="list-style-type: none"> Measure users' levels of engagement and stickiness with the product or service using pre-defined metrics or guidelines Measure indicators of general user response to the product or service Develop a prototype/wireframe of the user interface based on established requirements and methodologies and taking into account user-centred inputs and perspectives Propose suggestions and modify aspects of an IT product or service to enhance the overall user experience Implement usability tests on the updates or modifications made to a software and application design, to verify its technical viability and effectiveness 	<p>subsequent development processes</p> <ul style="list-style-type: none"> Analyse performance gaps in the user experience Translate indicators of user engagement, stickiness, trust and response into implications for the product and/or service features Determine the critical components or features of products and/or services, which require enhancement Make modifications to IT product and/or service features to enhance the user experience, supported by clear justification Manage changes to user flow charts and wireframes according to enhancements made Determine appropriate usability testing processes and techniques 		
		<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 				