

Software Quality Requirements based on ISO 9126

Worksheet for CPE 308/309

Project Flow Charting Tool

Name Poly Path

Characteristics	Subcharacteristics	Definition	required				assessed				Action Items
			high	normal	low	n/a	high	normal	low	n/a	
Functionality	Suitability	appropriateness (to specification) of the functions of the software	✓								
	Accuracy	correctness of the functions	✓								
	Interoperability	ability of a software component to interact with other components or systems	✓								
	Compliance	compliant capability of software	✓								
	Security	possible unauthorized access to the software functions			✓						
Reliability	Maturity	frequency of failure of the software		✓							
	Fault tolerance	ability of software to withstand (and recover) from component, or environmental, failure			✓						
	Recoverability	Ability to bring back a failed system to full operation, including data and network connections		✓							
Usability	Understandability	Determines the ease of which the systems functions can be understood, relates to user mental models in Human Computer Interaction methods	✓								
	Learnability	Learning effort for different users, i.e. novice, expert, casual etc	✓								
	Operability	Ability of the software to be easily operated by a given user in a given environment	✓								
Efficiency	Time behavior	response times for a given thru put, i.e. transaction rate.		✓							
	Resource behavior	resources used, i.e. memory, cpu, disk and network usage.		✓							
	Analyzability	ability to identify the root cause of a failure within the software.		✓							
Maintainability	Changeability	amount of effort to change a system.		✓							
	Stability	potential negative impact that may be caused by system changes			✓						
	Testability	effort needed to verify (test) a system change		✓							
	Adaptability	ability of the system to change to new specifications or operating environments			✓						
Portability	Installability	effort required to install the software			✓						
	Conformance	compliance for portability			✓						
	Replaceability	how easy is it to exchange a given software component within a specified environment			✓						