Reliability (glossary)

From SEBoK
reliability

The probability of a system or system element performing its intended function under stated conditions without failure for a given period of time. — modified slightly from (American Society for Quality 2011)

Sources

Discussion
This definition is similar to the one found in the Defense Acquisition Guidebook, and the commonly used texts. (DAU 2010) It has four important parts. First, reliability is defined as a probability that a system or system element performs some function. That function must be explicitly defined. Second, the stated operating conditions (which can include environment, load, and any other factor affecting life) must be explicitly stated. Third, a failure must be defined. Last, the appropriate time scale must be specified. This time scale can be chronological, or it can by cycles of operation, miles, landing, or any other measure that is related to the assumed failure mechanism.

Work Cited

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