

Availability (glossary)

From SEBoK
availability

Availability is the probability that a repairable system or system element is operational at a given point in time, under a given set of environmental conditions.

Source

Adapted from the following sources:

ASQ. 2011. "Glossary: Availability." American Society for Quality. Available at <http://asq.org/glossary/a.html>.

DoD. 2010. "Acquipedia: Material Availability." Department of Defense. Available at <https://acc.dau.mil/CommunityBrowser.aspx?id=387703>.

ReliaSoft Corporation. 2003. "Availability and the Different Ways to Calculate it." Available at <http://www.weibull.com/hotwire/issue79/relbasics79.htm>.

Discussion

The definition here is similar to the one given in (ASQ 2011) and in the Department of Defense. Availability has some additional definitions, characterizing what downtime is counted against a system. For **inherent availability**, only downtime associated with corrective maintenance counts against the system. For **achieved availability**, downtime associated with both corrective and preventive maintenance counts against a system. Finally, **operational availability** counts all sources of downtime, including logistical and administrative, against a system.

Availability can also be calculated instantaneously, averaged over an interval, or reported as an asymptotic value. **Asymptotic availability** can be calculated easily from the mean time to failure and the mean time to repair, but care must be taken to analyze whether or not a systems settles down or settles up to the asymptotic value, and how long it takes until the system approaches that asymptotic value.

SEBoK v. 2.4, released 17 May 2021

Retrieved from "[https://sebokwiki.org/w/index.php?title=Availability_\(glossary\)&oldid=60979](https://sebokwiki.org/w/index.php?title=Availability_(glossary)&oldid=60979)"

-
- This page was last edited on 6 May 2021, at 08:01.

