Safety-Critical Systems I
Wintersemester 2009/10

AG BS
Jan Peleska
Florian Lapschies

Exercise 2

Comparison of life cycle models

Consider the Systems Development Life Cycle (SDLC) as described in Wikipedia [1] and compare it to the life cycle description for safety-critical systems, as specified in IEC 61508-1 [2].

1. Identify how the SDLC described in [1] is embedded into the life cycle [2]. Are there activities in [1] which do not fit into [2]?

2. For each activity of [2] which is not identified in [1]

   - give a reason why it only occurs in [2],
   - give an example of a general purpose system which is not safety-critical, but where the system development could benefit from this activity only occurring in [2].

References

[1] Wikipedia, The Free Encyclopedia, "Systems Development Life Cycle," 2009, accessed 3-Nov-2009. [Online]. Available: http://en.wikipedia.org/wiki/Systems_Development_Life_Cycle

[2] DIN Deutsches Institut für Normung e.V. und VDE Verband der Elektrotechnik Elektronik Informationstechnik e.V., "EN 61508-1 Funktionale Sicherheit sicherheitsbezogener elektrischer / elektronischer / programmierbarer elektronischer Systeme, Teil 1: Allgemeine Anforderungen."

Submit your essay to `florian(at)informatik.uni-bremen.de` and hand in a printout in the session at thursday, 19th of November.