

ON IMPROVING HUMAN RELIABILITY IN COMPUTER-PROGRAMMING

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Summary

Human reliability in computer programming can be improved by reducing human errors. The traditional approaches for error reduction in industry are not applicable to minimizing errors in computer programming. Proposes a model for error reduction in software prior to its final release. The model consists of two modules, an error detection module, and an error correction module. A computational procedure is outlined for determining the optimal number of detection and correction stages prior to the final release of the software.

References:

1. BAILY RW, 1982, HUMAN PERFORMANCE EN
2. COOKE JE, 1975, INFOR, V13, P296
3. CURTIS B, 1991, HDB HUMAN COMPUTER I
4. DUFFUAA SO, 1989, APPL MATH MODEL, V13, P408
5. DUFFUAA SO, 1989, MICROELECTRON RELIAB, V29, P184
6. HELANDA M, 1991, HDB HUMAN COMPUTER I
7. KANTOWITZ HB, 1983, HUMAN FACTORS
8. RAOUF A, 1976, INT J PROD RES, V14, P111
9. RAOUF A, 1977, KYBERNETICS, V6, P289
10. RAOUF A, 1982, INT J PROD RES, V20, P65
11. RAOUF A, 1983, IIE TRANS, V15, P187
12. REINSTEDT RN, 1966, 5TH P ANN COMP PERS

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