


Model of analysis of design characteristics for maintainability ?determining an index of maintainability in a product/system design

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Abstract: Nowadays, the products/systems project has demanded the inclusion of maintainability characteristics in order to facilitate support activities, and, so, to reduce the time of intervention used for repair, life cycle cost, and improvement of availability and operational regularity. This work develops a scale evaluation model of the maintainability indexes, using value functions acquired with the application of MCDA (Multiple Criteria Decision Analysis). Applying the developed scales, which come to be definite and belong to the model, the index values which will determine the index of maintainability at three levels ?at the support activity level, at the component level, and at the product/system level ?will be obtained. In order to obtain the last global index, which belongs to the product, the index of each component ?presenting their support intervention frequency ?will be correlated. The objective of this research, addressed to maintainability, is to facilitate the product/system specification adapted to support needs, to comparisons between different options for the same product, to the correlation of maintainability index with other parameters of interest on the evaluation of support activity development, among other points concerning the treatment of project characteristics for maintainability on the part of the planner, producer and consumer.

Keywords: Index of maintainability, maintainability, support.

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