

Construction of a Contextualized Quality Problem-Solving Method

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Abstract

The industrial products developed today are more complex and the times given to design them, shorter. In this situation, companies have to use effective problem-solving methods which have to be adapted to all types of problems. This article proposes to adapt the problem-solving method to the context of each problem. The idea is to have a methodological base and to choose the right tools and stage sequences related to each specific problem. To characterize the context of the problem, we propose to introduce two evaluations: the problem profile and the problem solving state. This article gives techniques to materialize these two concepts and then to build a customized method from these two evaluations each time. An industrial application in a new high technology company illustrates our proposition and presents how it can be implemented.

Keywords: Contextualized Method, Meta method, Problem Profile, Problem-solving, Quality Tools, Solving State

References:

- [1] Altshuller G., Shulyak L., Rodman S., 40 Principles: Triz Keys to Technical Innovation, Technical Innovation Ctr Editions, 135 p., décembre 1997.
- [2] Avrillon L., Démarche de résolution de problèmes qualité dans le cadre de produits nouveaux de haute technologie, Thèse de doctorat, Université de Savoie, 2005.
- [3] Bothe K.R., Bhote A.K., World Class Quality. Using Design of Experiments to Make it Happen, Second Edition, Editions AMACOM, 2000.
- [4] Ford Motor Company, Germany, Training-manual for the G-8D Process, 1999.
- [5] Harry N., Schroeder R., Six Sigma. The breakthrough management strategy revolutionizing the world's top corporations, Editions Currency Doubleday, 2000.
- [6] Kepner C.H., Tregoe B.B., The new rational manager, Princeton Research Press, 1981.
- [7] Pillet M., Six Sigma : Comment l'appliquer, Editions d'Organisation, 2004.
- [8] Prévost L., Enquête criminelle, Editions Modulo Editeur, 1988.
- [9] Shainin R., Strategies for Technical Problem-solving, Quality Engineering, Vol. 5, No. 3, p. 433-448, January 1993.