Proactive Modeling of Market, Product and Production Architectures

This paper presents an operational model that allows description of market, products and production architectures. The main feature of this model is the ability to describe both structural and functional aspect of architectures. The structural aspect is an answer to the question: What constitutes the architecture, e.g. standard designs, design units and interfaces? The functional aspect is an answer to the question: What is the behaviour or the architecture, what is it able to do, i.e. which products at which performance levels can be derived from the architecture? Among the most important benefits of this model is the explicit ability to describe what the architecture is prepared for, and what it is not prepared for - concerning development of future derivative products. The model has been applied in a large scale global product development project. Among the most important benefits is contribution to: Improved preparedness for future launches, e.g. user interface and improved energy efficiency Achievement of attractive cost- and technical performance level on all products in the product family On time launch of the first generation of the product family

General information
State: Published
Organisations: Engineering Design and Product Development, Department of Management Engineering, Operations Management
Contributors: Mortensen, N. H., Hansen, C. L., Hvam, L., Andreasen, M. M.
Number of pages: 522
Pages: 133-144
Publication date: 2011

Host publication information
Title of host publication: Proceedings of the 18th International Conference on Engineering Design : Impacting Society through Engineering Design
Volume: Vol.4 Product and systems design
Publisher: Design Society
ISBN (Print): 978-1-904670-24-7
Keywords: Production architecture, Product architecture, Multi product development, Modeling product architecture
Source: orbit
Source-ID: 285797
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011