Institut für Mechatronik

**Autor(en) des Beitrags:**
Maurer, M.; Boesch, N-O.; Sheng, G.; Tzonev, B.

**Titel des Beitrags:**
A Tool for Modelling Flexible Product Structures - MOFLEPS

**Abstract:**
Manufacturers can obtain new possibilities regarding product strategy and customer orientation, if they focus on extensive product spectra instead of a single, distinct product. In contrast to models of invariant products, a product spectrum comprehends forecasted degrees of freedom, possibilities of implementation and descriptions of the solution space. Thus, the product spectrum specifies the potential from product view and implies further element and interdependency types; in contrast to common product models. The systematic creation, adaptation, and optimization of product spectra can result in competitive advantages, since new products can be realized shortly in high quality by means of existing knowledge. Conventional methods and tools used for product modeling are only partly suitable for the interaction with product spectra, because additional element and interdependency types, as well as uncertain and fuzzy information, cause increased complexity. Herein, we present a software tool for the modeling, structuring, and analysis of complex product spectrum structures, by means of graph theory and visualization in matrix and graph depiction.

**Stichworte:**
product structure; product spectrum; product configuration; matrix illustration