

研发、设计、测试

## 基于OCL的配置工具研究与实现

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**摘要** 大规模定制是现代工业发展的趋势。它不但具有大规模生产的低成本优势, 而且能够满足用户的个性化需求。产品配置是实现大规模定制的重要方法, 实现产品配置的核心是配置工具。GPCT (Generic Product Configuration Tool) 是河北工业大学创新设计研究所开发的领域无关的配置工具。它以UML表示产品配置模型, 以OCL文法表达产品部件间的约束。给出了GPCT的约束维护和验证方法, 并以数控立式磨床为例, 介绍了GPCT的实际应用。

**关键词** [大规模定制](#) [对象约束语言](#) [产品配置](#) [配置模型](#)

分类号

## Research and realization of OCL-based configuration tool

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### Abstract

Mass customization is the trend of modern industry, which not only has the advantage of low cost, but also can meet individual customer requirements. Product configuration is an important method to realize mass customization, and configuration tool is the core of product configuration. GPCT (Generic Product Configuration Tool) is developed by Institute of Design for Innovation, Hebei University of Technology and it is a domain-independent configuration tool. GPCT utilizes UML to represent configuration model and OCL (Object Constraint Language) to represent constraints among product parts. The constraint maintenance and evaluation of GPCT are presented in this paper, taking CNC vertical grinder being as an example, the application of GPCT is introduced.

**Key words** [mass customization](#) [object constraint language](#) [product configuration](#) [configuration model](#)

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