

面向知识工程的产品信息模型

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关键词: 产品信息模型 知识表达 知识工程 面向对象方法

摘要: 针对传统的产品信息模型(PIM)不能满足产品设计过程中对知识的需求,提出了基于知识工程(KBE)的产品信息模型。该模型采用基于KBE的知识表达框架,支持混合知识表达,采用面向对象的方法建模,基于属性、约束、操作对知识分类和表达,并在此基础上使用UML建立了PIM主框架,描述了PIM中的分类机制和组合机制。基于此模型建立了减震器的专家系统,将工程设计知识融于产品信息模型中,为专家系统提供了产品生命周期内的信息集成和知识支持。 To meet the requirements for knowledge in product design process, a product information model based on KBE was presented. Using knowledge representation framework based on KBE, the model was established by object-oriented method and supported mixed knowledge representation. With classification and representation of knowledge based on attribute, constraint and operation, a PIM main framework which described classification and composition mechanism was modeled by UML. Shock absorber expert system was established based on this model to merge engineering knowledge and support information integration of product lifecycle.

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