产品、研发、测试

基于顾客需求特征的眼镜产品配置设计研究

周宏明^{1,2}, 詹永照¹, 薛 伟², 李峰平², 付培红²

1.江苏大学 计算机科学与通信工程学院,江苏 镇江 212013

2.温州大学 机电工程学院,浙江 温州 325035

收稿日期 修回日期 网络版发布日期 2007-10-29 接受日期

摘要 基于顾客的脸形特征,面向产品的个性化设计需求,提出了采用参数化建立眼镜结构单元库和变型设计。利用顾客头部的正侧面照片合成人脸的三维模型并提取脸形特征参数,根据脸形特征参数构建顾客需求矩阵,基于顾客需求特征与眼镜产品结构单元之间的映射关系,提出了需求特征匹配算法。最后,给出了网络环境下由顾客、经销商和设计人员协同参与的眼镜配置设计系统的框架结构。

关键词 顾客需求特征 产品配置 特征映射 个性化协同设计

分类号

Research on eyeglasses configuration design based on feature of customer's requirement

ZHOU Hong-ming 1,2,ZHAN Yong-zhao 1,XUE Wei 2,LI Feng-ping 2,FU Pei-hong 1,2

1.School of Computer Science and Telecommunication Engineering of Jiangsu University, Zhenjiang, Jiangsu 212013, China

2. School of Mechanical Engineering of Wenzhou University, Wenzhou, Zhejiang 325035, China

Abstract

Based on personalized facial feature and meeting the requirement of individual design product, the database of eyeglasses components and the deformation design by adopting parameterization technology are built, and 3D facial model is synthesized by making use of front and profile photos of customer's head and personalized facial feature parameters are extracted. The customer's requirement matrix is built by the facial feature parameters, and based on mapping relation of the customer's requirements and the eyeglasses components, matching search algorithm are put forward. Finally system architecture of eyeglasses configuration design in network environment is presented, which demandes collaborations of customer, dealer and designer.

Key words Feature of customer's requirement product configuration feature mapping individual collaborative design

DOI:

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通讯作者 周宏明