液晶与显示
中文核心期刊
Chinese Journal of Liquid Crystals and Displays
主管：中国科学院
主办：中国科学院长春光学精密机械与物理研究所
中国物理学会液晶分会
中国光学光电子行业协会液晶分会
主编：郭海成

液晶与显示 2014, 29(1) 60-64 ISSN: CN:

器件驱动与控制

液晶面板制造业中制造执行系统的设计与实现

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摘要： 针对液晶面板制造企业资源计划的计划层与现场过程控制层之间信息和管理的断层而引起的生产管理问题，提出了在资源计划层和现场过程控制层之间的制造执行系统中引入射频识别技术的物料搬送模块，生产和品质信息通过在线设备与上位服务器之间的文件传输协议和数据库快速检索技术，实现生产和质量的数字化管理。在制品出货过程中，以XML文件和文本文件形式通过Tibco通信软件分别将制品品质信息和缺陷详细数据上传到目的服务器中，保证了从制品的生产控制、品质管理以及出货环节的数据和业务集成化。该系统在液晶面板制造生产线现场应用的结果表明，生产效率和生产质量得到了明显改善。

关键词： 射频识别 物料搬送 制造执行系统 液晶面板制造

Design and implementation of manufacturing execution system for TFT-LCD manufacturing enterprises

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Abstract: Considering the discrete manufacturing features and the production management problems caused by information and management gaps between Enterprise Resource Planning (ERP) plan and field process control,Radio Frequency Identification(RFID) was introduced into material transfer module in Manufacturing Execution System(MES) between Enterprise Resource Planning (ERP) plan and field process control. The communication between in-line equipments and upper server provided production and quality data by File Transfer Protocol (FTP) and Database inquiry technology. Quality information and defect detail data were sent to destination server by Tibco communication software with Extensible Markup Language (XML)and text file format, it fulfilled data and operation integration from production input, judge and shipping. Its application in TFT-LCD manufacturer line showed that both production efficiency and quality were greatly improved.

Keywords: radio frequency identification material transfer manufacturing execution system TFT-LCD manufacturer

收稿日期 2012-11-29 修回日期 2013-04-07 网络版发布日期

基金项目:

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1．翟军华 苏通 段季芳.液晶面板制造业中制造执行系统的设计与实现[J]. 液晶与显示, ,(): 0-0