

工程与应用

基于HTCPN的飞机维修保障过程建模与仿真

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摘要 飞机维修保障过程模型是研究飞机维修保障系统结构与运行的基础, 是典型的离散系统, 层次赋时着色Petri网 (HTCPN) 有多种优点, 是描述飞机维修保障过程的有力工具。论文介绍了HTCPN的建模方法, 分析了飞机的维修保障过程, 在CPNTools平台上, 建立了基于HTCPN的飞机维修保障过程模型, 并对模型进行了仿真, 给出了分析结果, 为研究飞机的维修保障提供了参考, 为优化飞机维修过程、合理配置资源提供了依据。

关键词 [HTCPN](#) [过程](#) [建模](#) [飞机](#)

分类号

Modeling and simulation of aircraft maintenance support process based on HTCPN

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Abstract

Maintenance process model of aircrafts is the basis of the research on aircraft maintenance support system, and the maintenance process is a typical discrete event system. Hierarchical timed colored Petri net (HTCPN) is a powerful tool to describe maintenance support process of aircrafts. The modeling method based on HTCPN has been introduced in this paper, the maintenance support process of aircraft has been analyzed. The model developed on HTCPN by CPNTools has been given, and the model has been analyzed, which could provide references for researching and optimizing the maintenance process of aircraft.

Key words [HTCPN](#) [process](#) [model](#) [aircraft](#)

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