

短文

半在线调度中约束求解算法研究

张居阳, 孙吉贵, 杨轻云

1. 吉林大学计算机科学与技术学院 长春 130012

2. 符号计算与知识工程教育部重点实验室 长春 130012

收稿日期 2005-10-12 修回日期 2006-8-23 网络版发布日期 接受日期

摘要

很多实际调度问题是半在线的. 尝试运用人工智能方法来求解半在线调度问题, 首先简要介绍了半在线调度问题并对其约束模型进行了分类, 通过引入单调性约束扩展的相关概念, 从约束建模角度形式化描述了一类动态约束扩展, 并在此基础上设计了一个完备动态约束求解算法, 最后给出该算法在半在线离散资源约束调度求解的应用算例. 测试结果表明, 该算法是可行有效的.

关键词 [半在线调度](#) [约束求解](#) [单调性](#)

分类号 [TP301.6](#)

A Constraint Solving Algorithm for Semi On-line Scheduling Problem

ZHANG Ju-Yang, SUN Ji-Gui, YANG Qing-Yun

1. College of Computer Science and Technology, Jilin University, Changchun 130012

2. Key Laboratory of Symbolic Computation and Knowledge Engineering of Ministry of Education, Changchun 130012

Abstract

Most of real-life scheduling problems are semi on-line. Recently, how to solve such dynamic problems is a hot topic in the research of artificial intelligence. The semi on-line scheduling is introduced and the constraint models are analyzed and categorized. By defining the relevant concept of monotony about constraints that appear in general dynamic constraint models, a kind of constraint extending is formalized. Based on this dynamic constraint modeling, a sound dynamic constraint solving algorithm is designed to deal with the scheduling problems. Finally, an application example of semi on-line discrete resource scheduling problems is given. Experiments show that the algorithm is valid.

Key words [Semi on-line scheduling](#) [constraint solving](#) [monotony](#)

DOI: 10.1360/aas-007-0765

通讯作者 张居阳 zjy2003@vip.sina.com

作者个人主页 张居阳; 孙吉贵; 杨轻云

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(515KB\)](#)

▶ [\[HTML全文\]\(OKB\)](#)

▶ [参考文献\[PDF\]](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中包含“半在线调度”的相关文章](#)

▶ 本文作者相关文章

· [张居阳](#)

· [孙吉贵](#)

· [杨轻云](#)