雙評準下的多機排程探討

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摘 要

隨著科技時代的來臨，現今商業間的競爭呈現多樣化的方式進行，尤其是 以利益獲得為前提的企業界，在降低成本就是獲取利益的考慮下，如何將 製程作完善之規劃，使以最小的投資讓生產機具發揮最大的稼動率而求取 最高的利潤，則端賴精確性之´ 排程。 而傳統的排程理論中，基本 上都是為滿足單一目標，而運用各種不同的派工法則，來求取一組可行解 。然而在實際生產環境中，各工廠所考量之目標通常是多目標而非單一目 標，而一般管理者所面對之目標亦非滿足單一目標之最佳化，而是確保所 有的目標都能滿足，並且能在短時間內得到一組較佳之可行解作為排程決 策之參數依據。在極大值的問題中，一步一步改進目前的解，稱為登山搜 尋。此方法在只有一個山峰時可得最佳解，如果問題非一山峰時，則無法 保證可得最佳解。而相鄰點搜尋法就是登山搜尋法的應用。因此在執行相 鄰點搜尋前，起始解的品質好壞，關係後續求解過程能否到達最高的山峰 。所以因此，本論文主要是在發展一個在多機下的啟發式演繹法，同時考 慮平均流程時間與平均遲延時間下之雙評準排程問題。首先求得一組較佳 之可行起始解，然後再利用相鄰點搜尋法，以求取起始解的改善。 最後並將此演繹法之運算結果與其他著名之派工法則在禁忌搜尋法下運算 結果相比較，以驗證此構建演繹法之優越性。

關鍵詞 : 排程問題 ; 啟發式 ; 演繹法 ; 雙評準

目錄

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