

# 使用ILOG CONFIGURATOR解決BOM多重組態的問題

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## 摘要

本研究的主要目的是希冀能建立一個能更有效且方便管理產品資料的方法，以避免與增進在傳統上的產品組態管理所產生的問題。在這樣的需求下，本研究結合兩個樹狀結構來作為產品資料的管理方式，其中一個是TSENG和JIAO所提出的產品家族結構中用以管理產品的設計變異的樹狀結構，經由這個樹狀結構可以讓設計者選擇所需的設計變異，而另一個樹狀結構則為使用ILOG CONFIGURATOR所建立的以物件觀念為基礎的樹狀結構，這個樹狀結構主要是用來作為產品的實體元件的管理與指派。在這樣的架構下，設計者可經由其中一個樹狀結構來選擇產品的設計變異之後，再經由必要的計算流程產生所需的工程限制需求，再從另一個樹狀結構中指派滿足這些限制需求的產品的實體元件集合，可以經由這樣兩個樹狀結構的組合方式來達到有效的管理公司內部的產品元件資料與快速的因應市場的需求改變，增加產品的資料在公司內部的管理效益與產品在市場上的競爭力。本研究也以一個車床之主軸箱的設計為案例，說明這樣的處理方式的可行性，並實際以ILOG SOLVER與ILOG CONFIGURATOR來建立案例的處理程式。

關鍵詞：產品組態、設計變異、產品家族結構

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