導入物件導向與派翠網於嵌入式系統的發展

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摘 要

由於嵌入式系統的應用層面相當廣泛，很難找出一種具有代表性的系統模型，因此在設計上就只能依據以往相似的設計經驗或是隨機的選用方法來設計系統。然而這種缺乏正規的設計方式很容易受限於設計者的能力，或因為設計者的經驗不足，使得整個系統無法去探索到各種可能的執行方式，進而求得最佳的效能。 為了使系統有完整的分析與設計功能，本文利用物件導向與派翠網的結合來描述嵌入式系統的發展流程，期望能藉由物件，以更接近真實系統的運作方式，來描述嵌入式系統的行為。進而使得整個系統的發展流程可以模組化、標準化，以減少系統開發的時間與風險。 除此之外，本文也利用派翠網的可達樹分析，驗證此發展流程的可行性，以確保在發展的流程中不會有死結的狀態，減少錯誤的發生。

關鍵詞 : 嵌入式系統、物件導向派翠網、可達樹分析、軟硬體共同設計

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