

软件过程技术

基于STM32F103VB的应用编程技术的实现

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**摘要:** 针对嵌入式应用中更新升级固件的需求,在阐述应用编程(IAP)技术原理的基础上,以具有Cortex-M3内核的微控制器STM32F103VB为平台,给出了基于STM32F103VB IAP技术的实现方案,并对方案的可靠性进行了探讨。最后讨论了IAP技术的具体实现方式。该方案实现了以具有STM32F103VB微控制器的嵌入式系统终端软件的在线升级,提高了软件维护的方便性,缩短了终端软件系统的开发周期。

**关键词:** 固件升级 应用编程 Cortex-M3 STM32F103VB

Design and implementation of IAP techniques based on STM32F103VB

**Abstract:** According to the requirements of firmware upgrade in embedded applications, the on-line software update solution based on the ARM Cortex-M3 32-bit RISC processor—STM32F103VB was given after introducing the feature of the In Application Programming (IAP) technique, and then the reliability of the solution was discussed. Finally, realization of on-line software update was given in detail. The solution realized on-line software upgrading based on STM32F103VB microprocessors in embedded applications, and shortened the development cycle and decreased the difficulty of maintenance for system software.

**Keywords:** firmware upgrade In Application Programming (IAP) Cortex-M3 STM32F103VB

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