Title (en)

METHOD FOR UPGRADING A MICROPROCESSOR-CONTROLLED DEVICE WITH A NEW SOFTWARE CODE VIA A COMMUNICATION NETWORK

Title (de)

VERFAHREN ZUM AUFRÜSTEN EINES MIKROPROZESSORGESTEUERTEN GERÄTS MIT NEUEM SOFTWARECODE ÜBER EIN KOMMUNIKATIONSNETZWERK

Title (fr)

PROCEDE POUR MUNIR UN DISPOSITIF REGULE PAR MICROPROCESSEUR, D'UN NOUVEAU CODE DE LOGICIEL DANS UN RESEAU DE COMMUNICATION

Publication

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Application

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Abstract (en)

[origin: WO2006111573A1] Disclosed is a method for upgrading a microprocessor-controlled device with a new software code via a communication network. According to said method, the device comprises a non-volatile program memory with two memory sectors, i.e. a first and a second memory sector. The first memory sector (boot sector) is provided for a basic program supplying a first operating system and first functionalities of the device while the second memory sector (update sector) is provided for the software code that is to be transmitted. The first memory sector is overwrite-protected by means of hardware. The inventive method encompasses the following steps: the system is first started with the basic program from the first memory sector while a system variable UPDATE is read. If said system variable comprises the value perform update , a perform firmware update function is requested, whereupon said variable is set to the value invalid firmware ; then a connection is established to an overriding unit, and the new software code is transmitted to the device. Once the new software code has been saved in the second memory sector, the new software code is checked regarding bit errors. The system is restarted in case bit errors have occurred during the transmission while the new software code from the second memory sector is executed and the system variable UPDATE is written with the value valid firmware if no bit errors have occurred. The inventive method allows microprocessor-controlled devices to be securely upgraded with a new software code via a communication network.

IPC 8 full level

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CPC (source: EP US)

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See references of WO 2006111573A1

Citation (examination)

DE 4214184 A1 19921112 - INTEL CORP [US]

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