

Procuring BIOS Updates



Application Note

Revision Summary: This is the initial release of the Application Note

Introduction

This Application Note is addressed to IBM Field Application Engineers (FAEs) and describes the procedure for procuring updates to BIOS for users of the IBM x86 microprocessors. IBM Microelectronics Division provides support to several BIOS suppliers who have added support for the 5x86C microprocessor. In some instances our users have licensing agreements with a BIOS supplier and are free to make changes to the code on their own.

The remainder of the user community falls into one of two categories:

1. Users who design and build their own system boards
2. Users who purchase system boards from a vendor.

Users in the first category should deal directly with the BIOS vendor to procure whatever changes are required to support their designs. Users in the second category should request changes from the motherboard vendor who will, in turn, deal with the BIOS vendor. This decision process is shown in flowchart form later in this document.

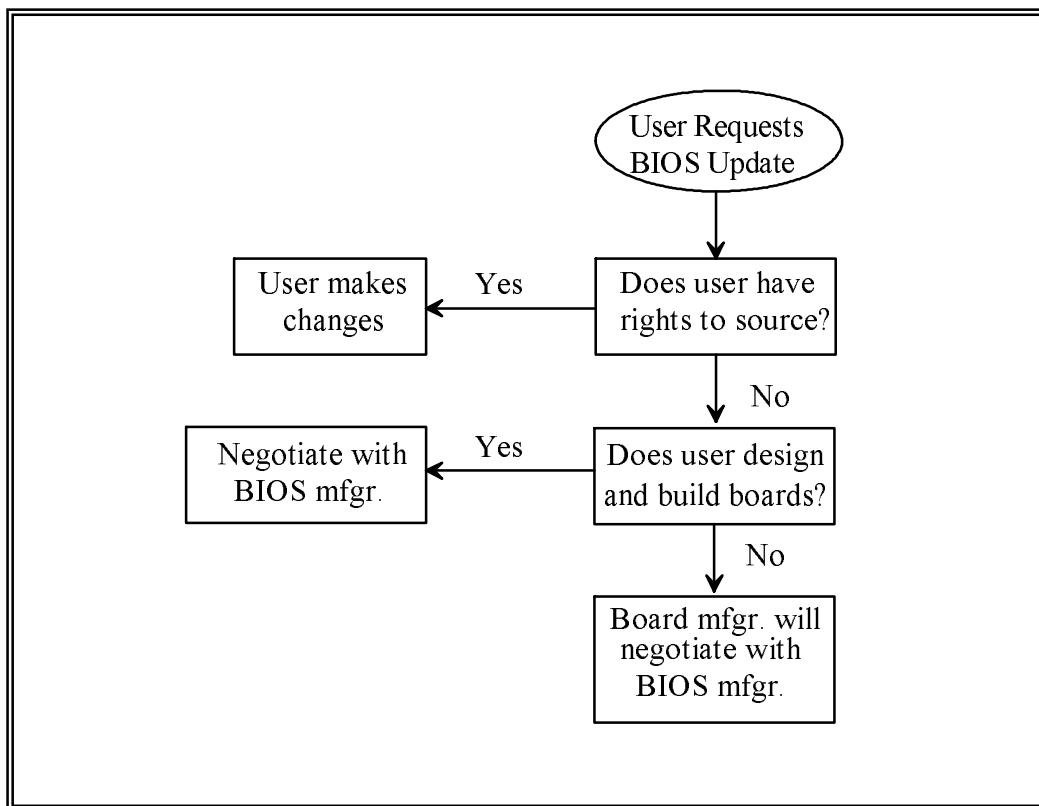
The IBM Microelectronics Applications Support Group has authored several Application Notes and other documents that provide guidance to designers and writers of BIOS code. Some of these documents describe the features of the various x86 processors and the internal settings used to activate these features. Other documents provide guidance in setting up boards for optimum performance and performance tuning of the motherboards. A list of the titles of these documents appears later in this note. Also provided is a list of BIOS manufacturers and contacts to assist the user in locating and evaluating possible BIOS solutions for their designs.

Related Documentation

Following is a list of documents the user may find helpful in designing, updating and tuning motherboards using IBM x86 microprocessors. Some of these documents are available from the fax service and others can be obtained by contacting the x86 Applications Support Group. Documents marked with an asterisk are IBM Confidential.

"IBM 5x86C Microprocessor Databook"
"Guidelines for Setting Board Jumpers for the IBM 5x86C Microprocessor" Fax #40041
"Bring-up and Performance Enhancement of IBM 5x86C Microprocessor-Based Systems Using PUZZLE.EXE" Fax #40036
"Selecting an Appropriate Heatsink for the IBM 5x86C Microprocessor" Fax #40039
*"x86 Performance Guidelines: Tuning for Optimal Performance" **
"Quick and Dirty List for Utilizing the Write-Back Cache on IBM 486 DX2/DX4 Processors" Fax #40014
"IBM 486 DX4 Microprocessor BIOS Writer's Guide" Fax #
"IBM 5x86C Microprocessor BIOS Writer's Guide" Fax #40038
"Solution Pak" - Motherboard, Chipset and BIOS Support Summaries for 486 DX4 and 5x86C Microprocessors
IBM 5x86C Errata List for the revision level of the processor you are using*

Decision Flow



BIOS Manufacturers

The following list shows several BIOS manufacturers who provide specific support for the IBM x86 microprocessors together with contact names and telephone numbers¹. It is the user's responsibility to ensure that the manufacturer selected provides support for the specific microprocessor being used and that the BIOS properly enables the features and functions needed for the user's application.

AMI - (404) 246-8612
Mr. David Maddox

Phoenix - (714) 440-8017
Mr. Jerry Ward

Award - (415) 968-4433
Mr. Jeffrey Flink

SystemSoft - (508) 647-2848
Mr. Stephen Gentile

MR BIOS - (408) 727-6991
Mr. Michael Meisner

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¹ IBM Microelectronics Division will consider listing additional sources. Please contact the x86 Applications Support Group for more information.