



#512Ke: System 6.0.4 and The "Classic Macs"

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Using an upgraded 128K or 512Ke Macintosh with System 6.0.X can cause problems with some control panel devices. This tech note will shed some light on the problems.

The new Macintosh System Software 6.0.4 is out as well as the new release of Hypercard (1.2.5). If you have an old 128K RAM, 512K RAM, or 512Ke RAM motherboard Apple says you can't use the new software. This is NOT TRUE!!! You can if you have enough RAM, the right ROMS, and a couple of INITs.

My motherboard is a 128K RAM motherboard I bought in 1984 that I have added a SCSI port, 2 megs of RAM, 800K Floppy drives, and the 128K ROMS. I used system 6.0.2 all year and recently installed system 6.0.4 with no problems.

First, you must have the 128K ROMS of the Mac Plus. If you have the original 64K ROMS, you can **not** use System 6.0 or newer. If you haven't bought the 800K disk drive and 128K ROM upgrade, RUN to your dealer and buy it before they are discontinued. Before you buy it though, ask about the price of a Mac Plus motherboard upgrade. If the price is right, buy the Mac Plus motherboard. You get a SCSI port and can use SIMMS to upgrade the RAM to 4 megs. This is the way to go if you can afford it. {Note: Mac Plus's new sell for \$950 with an Educational discount and for about \$1200 on the street. Compare before you buy.}

Secondly, you must have at **least** 1 meg of RAM. If you have the 128K ROMS and 512K RAM, you can't run system 6.0 or higher and have much memory left. Most applications won't boot due to lack of memory.

The main difference between a Mac Plus and a "Classic Mac" with 128K ROMS is the PARAMETER RAM (forget the SCSI port & RAM, it's not important here). The Mac Plus added more RAM to the battery backed up PARAMETER RAM and it is called XPRAM (for eXtended RAM I guess). System 6.0 uses the XPRAM for SOUND and the MAP control panel devices. Using upgraded "Classic Macs" with the new systems causes problems with the SOUND and MAP devices.

The solution is to use some clever software that uses disk space to store the extra XPRAM values. There are two INIT's on Genie (included with this file) that fix the problem. The sound INIT 1.0.1 by Scott Armitage is file #11944 and the Map Fix INIT by R. Butcher is file# 11634. Below are the directories & info on Genie. I have included the complete files for convenience here. Read Scott Armitage's document, it explains his SOUND INIT well (it's attached at the end of this document).

ALL Libraries

No.	File Name	Type	Address	YYMMDD	Bytes	Access	Lib
11634	MAPFIX INIT	X	RBUTCHER	881031	1260	230	6
	Desc: INIT fixes Map cdev for 512KEs						
11944	XPRAM INIT 1.0.1.SIT	X	S.ARMITAGE	881127	3780	293	6
	Desc: Lets 512KE's use Cntl Pnl beep snds						

Number: 11634 Name: MAPFIX INIT

Address: RBUTCHER Date: 881031

Approximate # of Bytes: 1260

Number of Accesses: 230 Library: 6

Description:

I put this INIT together as a fix for those of us with System 6 software, and "non-standard" Mac upgrades and 512KE machines, third party SCSI's, etc... This INIT, when used in conjunction with "512KE XPRAM INIT" (File #10200 in this Library) will allow most of the System 6 features to be operational for those of us who chose non-Apple upgrade paths, or do not have the new extended XPRAMs in our machines. You should now be able to use both the Sound and the Map cdev.

Mapfix INIT should be placed in the System folder to be operational.

Keywords: INITs, XPRAM, System 6, Map cdev, fixes

Number: 11944 Name: XPRAM INIT 1.0.1.SIT

Address: S.ARMITAGE Date: 881127

Approximate # of Bytes: 3780

Number of Accesses: 293 Library: 6

Description:

System 6.0 (and above) adds Sound Manager features to MacPlus and Mac SE machines, most notably the selectable beep sounds in the Control Panel. Unfortunately, 512KE's cannot use the Control Panel beep sound selector. This INIT file gives 512KE's that capability.

This file is of use for those with 512KE's that have had third party memory upgrades and are running these new System file versions.

Keywords: PRAM, XPRAM, INIT, BEEP, SOUND

All of us who are still using "Classic Macs" owe a big "Thank you" to Scott Armitage and R. Butcher for these clever pieces of software. Thanks guys!! Now, why doesn't Apple include similar stuff with their system software upgrades? Or, at least send out a Tech Note so that dealers would understand the problem & solution.

512KE XPRAM INIT

Version 1.0.1

September, 1988

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Apple's System 6.X allows earlier Macs to have the Sound Manager features that Mac II users have had for some time. The most obvious use of the Sound Manager is to be able to select custom beep sounds in the Control Panel. To do this, Apple made use of a piece of memory (called XPRAM, for eXtended Parameter RAM) that remembers the beep setting you make in the Control Panel. Unfortunately, this memory is not present in machines older than the Mac Plus. This gives 512KE users unable to use this feature, even if they have had memory and/or SCSI port upgrades.

The 512KE XPRAM INIT (catchy name, eh?) will make your 512KE think that it has this XPRAM by storing this information somewhere else instead. A small bit of data is appended to the System file and is read from and written to instead of the XPRAM.

To use, you must first install System 6.X into your computer. Put it on the floppies you boot from or on your hard disk. Make sure that the file "Sound" is in the System Folder. Put the 512KE XPRAM INIT in the System Folder, too. Reboot the Mac. Open the Control Panel and click on the "Sound" icon. Select the beep sound you want and you're in business.

You can add more sounds to your System file by using any of numerous sounds that have appeared on services like GENie or CompuServe. Programs like Sound Mover can add or remove these sounds in the System file.

Revision History:

June, 1988: Version 1.0 release for System 6.0

September, 1988: Version 1.0.1 release for System 6.0.1/6.0.2

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Permission is given to use 512KE XPRAM INIT free of charge and to distribute it as long as this documentation is distributed at the same time and that if you charge for the program that you do not charge more than the cost of distributing it.

Further Reference:

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- *Inside Macintosh*, Volume IV, The Mac Plus Hardware page 251