Not Being Able to Hear Playback

A. Problem Mixer level is set too low.

Solution Open the Mixer from the Applications Menu, and set the Input and Output Channels' volume level to +00dB.

B. Problem Output cables are not connected correctly. (You know this is the problem if you can see Meter activity on the Output channel.)

Solution The audio Out jack(s) must be connected with an RCA patch cable to a mixer or the CD/AUX input of a receiver or amplifier. Set the receiver to CD input and turn it on, also check the speaker connections.

Can't Select Correct Sampling Rate in Editor

A. Problem The Set Sample Parms display will not show all the rates available by dragging the selector knob.

Solution Use the arrow buttons next to the slider or click in the slider to the left or right of the knob to see all the available increments.

B. Problem Sample was recorded with a different type card.

Solution If the sample was recorded with the AD1012 the same sampling rates will not be available for the AD516, and vice versa. Use the resample option in the Editor to change sampling rates or re-record the sample.

Card Communication Errors

A. Problem This very rare error usually means a hardware problem-either with your Amiga or the card. Card communication errors include: Comm Error #2, GetW Error, SendW Error, and DSP Init. Failed.

Solution Try resetting your Amiga, or turning it off and then back on. If this doesn't help, try re-seating the card in another expansion slot. If this still doesn't solve the problem, call SunRize technical support for more information.

Cue List Won't Trigger

A. Problem Most often, the Cue List is just turned **OFF**.

Solution For the Cue List to listen for time code and preload samples, it must be turned on. Simply click the ON/OFF button at the top left of the window to turn Cue List **ON.**

B. Problem Samples are not where the Cue List thinks they are.

Solution When a sample is entered in the Cue List, a box with the sample's name inside will be created on one of the Cue List tracks. The Cue List knows the complete path to the sample: the directory and file name. If you later delete, move or rename the sample while the Cue List is closed, the Cue List won't be able to find the sample. It will display an empty box in the track where the sample used to be.

You need to tell the Cue List where to find the sample. This can be done as follows: Click on the empty sample box to open the Audio - Event Parameters. Next select a sample from Sample List, and drag it over to the "Sample" field. Drop the sample in to assign the sample to the Cue List event.

C. Problem The SMPTE source may not be set correctly.

Solution If you are using an external SMPTE source, like a VTR, close the internal SMPTE generator. Also check the SMPTE source in Preferences. It should be set to AD516#1 or AD1012#1. If you are triggering from the internal SMPTE generator, set the source to Internal.

D. Problem Too many errors in the incoming SMPTE time code. (Studio 16's internal generator will not cause this problem.)

Solution Bad time code can be caused by a bad cable, tape drop out, bleed through from audio tracks, or bad levels on the SMPTE track.

SMPTE errors can be verified by opening SMPTE monitor and watching for flashing squares in the upper left corner. These may signify time code errors. If SMPTE errors are causing the Cue List to intermittently halt audio playback, SMPTE error detection in the Cue List can be turned off with the "Ignore SMPTE Errors" in the Options menu. See the Reference Section on Cue List for details.

E. Problem Not enough preload time for samples.

Solution Move the position flag farther from the first sample to give the sample time to be preloaded. The flag should be between 5 and 15 seconds before the first sample.

Samples Loosing Sync In Cue List

A. Problem Samples have different sampling rates.

Solution Multiple samples that playback simultaneously must have the same sampling rate. You can alter the sampling rate of a sample in the Editor. From the Effects Menu select the Resample option.

B. Problem SMPTE lock is off.

Solution   Open Preferences window and activate Lock On in the SMPTE section.

Flashing Screens, Overload Errors, or Skipping, Missing or Repeating Sound

Playback stutter or skipping occurs when your Amiga can't access the hard disk's data fast enough, or doesn't have enough CPU time to service the sounds that are currently being played or recorded. When Studio 16 detects this problem, it will flash your screen or give an "overload" error message. The following are common causes and solutions for "skipping" audio. Although the causes are listed individually, "skipping" is often caused by multiple problems compounding one another rather than just one cause.

A. Problem Your DMA mask setting on your hard disk may be incorrect. If your hard disk is abnormally slow or has an inability to playback at least 3 or 4 tracks, you may need to change the DMA mask for your hard disk.

1. Solution   If you have a CBM controller, use 'HDToolBox' in your 'Tools' drawer. Once HDToolBox is running, select "Partition Drive" then "Advanced Options". Then select your partition from the "bar", and select "Change file system for partition". Make a note of the original MASK then change the MASK to: 0x7FFFFFFE. save the changes, select "OK", "OK", "Save changes to drive". You will need to re-boot your Amiga for the changes to take effect.

2. Solution   If you are using a GVP hard disk controller, use "FastPrep" in manual mode, instead of HDToolBox. See your GVP manual for more information. The correct DMA MASK for GVP controllers varies--call GVP. However, on newer controllers the above mask should work.

B. Problem You are not working with WorkBench version 3.1.

Solution   Keep an eye out for WorkBench release 3.1 from Commodore. This new version of the Amiga operating system supports much faster seeks than previous versions. This greatly improves the speed of Studio 16 disk operations such as playing ranges in the editor or playing regions in the cue list. To take advantage of this speed increase, you must install WorkBench 3.1, then increase the FastFileSystem block size using HDToolBox/Partition/AdvancedOptions. The larger the block size, the quicker the seeks.

C. Problem Your Amiga doesn't have enough CPU time to complete all the tasks required by Studio 16 to play the requested sounds.

1. Solution   Turn off CPU intensive Studio 16 modules, such as Meters, and SMPTE Monitor. Substitute Tiny Mixer instead of Mixer.

2. Solution   Upgrade your Amiga to a faster processor. If you have an Amiga 2000, install a 68030 accelerator card with fast RAM. For example, a stock A2000HD with the AD516 doesn't have enough CPU power to play 8 tracks at a 44K sampling rate. It can handle three or four tracks at 44K or six tracks at lower rates, such as 15K. (The AD1012 will play 2 tracks without an accelerator.)

3. Solution   Using Cue List, combine samples to be played back simultaneously into one sample. See Cue List Reference Section on ping-ponging for more details.

4. Solution   Minimize the length or number of crossfades in your Cue List.

5. Solution   Upgrade your hard disk controller to a more efficient controller. The amount of bus resources required to transfer the same data to or from your hard disk can vary considerably between controller manufacturers. By switching to a more efficient hard disk controller, you leave more time for the CPU to work. Probably the most efficient hard disk controller currently available for Amiga 4000s is the A4091 or the FastLane. These are Zorro III controllers that write data at a high speed and 32 bits at a time. This results in a significant performance increase.

6. Solution   Upgrade from an AD1012 to an AD516. SunRize's 16 bit card includes extra circuitry that makes it more efficient at transferring data than the AD1012.

D. Problem   The hard disk is too slow for the number of samples playing.
1. Solution   Reduce the number of simultaneously playing samples. If you can reduce the number of tracks playing simultaneously, you will reduce the data transfer rate and fix the problem.

2. Solution   Lower the Sampling Rate. If you lower your sampling rate, you will reduce the amount of data that must be transferred and improve over all system performance.

3. Solution   Increase the Channel Buffer size in Preferences. By increasing the playback buffer sizes, you will eliminate skipping in many cases. However, the improvement will be less as you keep increasing the buffer sizes. That is, increasing the Channel Buffers from 256K to 512K will have much more of an improvement that increasing the buffers from 512K to 1024K. Keep in mind that one channel buffer is allocated for each playing sample, and each track in the Cue List. Make sure that you have enough system RAM to cover your requested buffers. For example, if you play four simultaneous tracks with the channel buffer set to 4096K, you will need 16,384K (or 16 MB) of free RAM just for buffers. For more about RAM requirements, see the Preferences Reference Section.

4. Solution Buy a faster hard disk, or a better hard disk controller.

E. Problem The hard disk is fragmented.

Solution Fragmented hard disks are discussed in Chapter 4. The solution is to buy a program that will de-fragment your hard disk. Talk to your Amiga dealer for a recommendation.

F. Problem The 'Use Extended Memory' option in the Preference Menu is set incorrectly.

Solution Try the 'Use Extended Memory' option both on and off to determine which way your system works best. However, in general terms select this button if your hard disk controller and 030/040 card are on the same pc board. (e.g. You have a stock A3000, A4000, or you have a GVP 030 card with built in hard disk controller.)

Do NOT select this button if you have an 030 or 040, but your hard disk is on a stand alone Autoconfig card. (e.g. You have a GVP series II DMA hard disk controller and a PP&S 040 card with 32 bit RAM.) See the Preference Reference Section for details.

G. Problem There are too many or too large of a non-destructive edit in a sample.

Solution Select Make Permanent from the Editor Menu. When Studio 16 is playing a sample and encounters a non-destructive edit, it must seek over the edit. For large edits, this can take a long time and causes skipping. This problem can also be largely eliminated by installing WorkBench 3.1 and increasing the block size on your audio partitions.

Flickering Screen On an A4000

A. Problem WorkBench Preferences are set incorrectly.

Solution Set the 'Avoid Flicker' and 'Mode Promotion' flags in the 'IControl Preferences' program. The program is found in the WorkBench Preferences drawer.

Full Hard Disk

A. Problem Running out of hard disk space is a problem for everyone eventually, some sooner than others.

1. Solution Delete unnecessary data.

2. Solution Make non-destructive edits permanent on samples that you have performed non-destructive cuts. Note that Make Permanent temporarily requires disk space equal to the file being made permanent. And, do NOT make permanent samples with non-destructive paste-inserts, unless you're prepared to tie up more disk space.

3. Solution   Buy another or a larger hard disk.

4. Solution   Reduce your sampling rate or resample your audio with a new rate in the Editor.

5. Solution   Record or Convert samples that don't require a high SNR, like explosions, to an 8 bit file (IFF-8SVX).

6. Solution   Archive your samples on a tape backup or an alternate backup device and then delete them from the hard disk.

Gain Won't Adjust

A. Problem   Gain chip is malfunctioning on AD1012.

Solution   The Digital Pot in the input gain circuit may be bad. Suspect this if you can barely hear the input source or changing the gain level has no effect on the input volume. Call SunRize technical support if you suspect this problem.

Graph Does Not Match Sound

A. Problem   Graph file has been corrupted.

Solution   Delete the sample's **.graph** file from the audio directory that contains the problem sample. You can delete files with WorkBench or Shell.

Hard Disk Read/Write Errors

Hard drives aren't fool proof, and it is inevitable that you will at some point encounter a disk error. This can manifest itself as a "Read" or "Write" error. Or, occasionally as a "Can't Validate Drive" or "Checksum" error. Sometimes clicking "retry" or "cancel" on the DOS requester presenting the error will cause the error to disappear. However, if this happens you should start to worry because the error will probably reappear later, and can mean a failing hard drive.

Of course your best advice is to backup your hard drives. They can be backed up to a SCSI tape drive, a SCSI optical drive, or to and audio DAT tape drive with SunRize's DD524 interface. However, due to the time and expense involved, many people don't bother. Just be warned that a hard disk "crash" is not just a possibility, it is very likely that it will happen to you eventually.

A. Problem   The hard disk gets intermittent read/write errors.

1. Solution   Upgrade your hard drive controller's ROMs to the latest version--call your hard drive controller manufacture.

2. Solution   Your hard drive could be failing. Replace it.

B. Problem The hard disk has crashed.

1. Solution Take your Amiga to your Amiga dealer. Their service department should be experienced in attempting to restore data from corrupt hard drives.

2. Solution Use a hard disk utility program to try and fix the errors on the hard disk. This may or may not work, but if you have any amount of time invested in the data on the bad partition, it's worth a try.

3. Solution Use a program like "DiskSalv" to recover the files from the corrupt partition. "DiskSalv" is a public domain program that will copy files off a partition with errors onto a good partition. Once the operation is completed, you can re-format the bad partition and copy the files back over. However, DiskSalv requires a good partition or drive with enough free space to hold the copied files.

4. Solution Re-format the partition that the error occurred on. This unfortunately deletes all data on the partition being formatted. You can do this with the WorkBench "Initialize" option. Hopefully, you have a backup. If you do, restore the backup after formatting the partition.

5. Solution If you don't have a backup, you can attempt to copy the data from the bad partition to another partition using WorkBench, DiskMaster/Opus, or the Shell copy command BEFORE re-formatting the bad partition. This will probably recover some of the files, if not all. However, it does require a good partition or drive with enough free space to hold the copied files.

Installation Problems

A. Problem Does not recognize the AD516 or AD1012 audio card.

Solution Re-seat the audio card in the same slot or a different slot. Refer to Chapter 2 - Installation for instructions on installing the hardware.

B. Problem Installation utility was aborted

Solution Begin the installation utility again, or inspect the Studio 16 Installation log file for problems.

Some Modules Don't Open When Selected

A. Problem This is usually caused by a missing system library in the libs: directory. If a Studio 16 library is missing, you will get a warning (e.g. "Can't Open Studio.library"). However, if certain operating system libraries are missing (e.g. a math library) programs will simply not run.

Solution Copy the libs directory from your master WorkBench floppy into your libs: directory on your hard disk. Insert you WorkBench Master disk into DF0: and from shell, type:

```
copy DF0:libs libs:
```

Module Reference

- AD516Handler
- AD1012Handler
- AREXX Commands
- Cue List
- Editor
- Instance
- Message Monitor
- Meters
- Mixer
- Module List
- Preferences
- Quit
- Recorder
- Sample List
- SMPTE Generator
- SMPTE Monitor
- Shell Commands
- Time
- Tiny Mixer
- Utility