

1. Air Studios

1. Protools Troubleshooting

There is much information regarding Protools problems on the Digidesign website. Certain problems can catch you out, especially in a high pressure recording environment. These are the issues and workarounds that we currently contend with:

2. Tempo Map Issue

Protools 6.4cs8 can suffer a severely reduced record track count in the following circumstances:

- A tempo map is present.
- SYNC I/O is set to generate code.

In this configuration compare the online and offline disk activity in record. If disk activity doubles when online then this is the fault mode. It will only safely record around a third of the track count.

Note that this is NOT a reliably repeatable fault. It may be OK for days, then go wrong. The workaround is to chase code or remove the tempo map.

Protools 6.7cs8 exhibits the same behaviour all the time as soon as you turn on generate, tempo changes or not so we do not currently recommend this version. The workaround is to chase code.

3. Minimum Sync Delay too low

If Protools fails to drop into record at all when chasing code increase the Minimum Sync Delay (MSD) as follows:

Go offline and time how long it takes for protools to go into record.

Transate this value into frames and enter this as the MSD (in Peripherals).

Go online and test to see if you can reduce this value.

This occurs because the DAE buffer fills up before DAE has allocated the space on the drive. Protools will ditch the buffer and retry allocating space ad-infinitum. Size of disk, number of

tracks, buffer size & fragmentation all contribute this problem. This was a big problem in OS9 but is starting to appear in more complicated OSX sessions. Naturally this makes your session take longer to drop into record. With OS9 you can move to use smaller HFS formatted drives instead.

4. OS9 and HFS versus HFS+

We are now running OSX HFS+ out of preference. However if you work in OS9 then HFS or HFS+ have the following pros and cons:

Large HFS will waste drive space due to huge block size (>36Gb).

HFS+ is slower to drop into record (up to 3x).

Small HFS are quickest to drop into record (<36Gb).

Only HF + is OSX compatible.

5. SCSI Bus

If you experience problems with your drives then check that you are not running an Ultra160 caddy in an Ultrawide bay see above. Your supplier should confirm if repeater boards are fitted as you have to open the chassis bay to check.

Always shut down to add or remove drives. Hot swapping can result in corrupt master file directories. It will also retain the driver from the previous drive reducing performance. If you must hot-swap then ensure you use a program such as Atto ExpressTools to unmount the drive properly.

It is easy to put a SCSI 5 terminator or cable on upside down.

Do not use LVD/SE labeled SCSI terminators. They are suppose to sense whether you have a Single-Ended or Low Voltage Differential SCSI bus. Differential is almost never encountered outside big servers. These terminators cause very weird behaviour. We believe that it is related to the length of the SCSI cabling. Symptoms include drives that don't mount properly or fail to copy between each other.

On older systems using SCSI 1 (or even the old Mac 25-pin style, SCSI) never use a cable less than 1cm thick. The thin type are such because they do not have enough ground lines inside the cable.

