disguise Audio advisory

**Issue:**
Audio clicking or popping and audio drifting out of sync with video under heavy load

**Affected machines:**
This is a software issue, so is apparent on all disguise servers

**Background:**
With release 15.1 we have refactored the way we deal with audio. Unfortunately, this has given rise to some audio issues which we are currently trying to resolve

**What the issues are:**
In 15.1 onwards, you may experience:

a) audio clicking or popping during playback

Release 15.1.4 has some fixes to address this and reduces the chances of this occurring. Additionally, the workarounds below reduce the occurrence of audio clicking or popping to zero in our current testing. However, we recognise that the structure and implementation of the audio refactor still has some work to go as audio clicking may still be prevalent on higher frequency sounds

b) audio drifting out of sync with video under heavy load

Under heavy load, when perhaps frames are starting to drop, the audio may drift out of sync with the video. This requires major work and has not yet been satisfactorily addressed other than to optimise the project and reduce system load

**Options:**
If your show is audio critical, there are some options:

1) Stay on the latest version

If you are not affected by heavy load, the best option would be to sequence your show on the latest version (15.1.5 can be downloaded from here) as this has some fixes and workarounds to address the clicking and popping. That way, projects can run on the latest version and enjoy all the features, improvements, fixes and patches deployed from 15.1 onwards

Note: projects created in later releases cannot be opened in earlier versions of the software. In this specific example, once a project has been created on 15.1.x, you will not be able to go back to 15.0.6 - the last version before the audio refactor - or anything earlier than that
2) Revert to the last release prior to the audio refactor

If your show is audio critical and neither the latest build nor the workarounds help you, then there is the option of sequencing in the last version before the audio refactor

Release 15.0.6, build 52148 does not contain the audio issues described above and can be downloaded from here

Note: this build does not contain the cumulative series of fixes, improvements and patches implemented to date in r15.1.x. For a quick view of the changes enacted since 15.0.6, see the What’s new in r15 section of the User Guide. Full changelogs can be viewed in the Previous versions section of the download page

3) Downgrade your 15.1.x project to 15.0.7

If you have already sequenced your project in 15.1.x and want to downgrade the project to an earlier release prior to the audio issues, there is a special version of 15.0.7 to accommodate this. Notes:

- Only downgrades from releases r15.1.0 - r15.1.9 to r15.0.7
- Audio mappings will need to be repatched
- Upgrade back to r15.1 should be possible, but not to another r15.0 release

Version 15.0.7 can be downloaded from here

Workaround:

In our current testing, the following workarounds have reduced the audio popping to zero (though note this is still ongoing, and we have seen the potential in the code for popping at high frequencies)

- reduce the volume of the audio. We are noticing that our interaction with drivers adds volume which can result in clicking
- use WASAPI instead of ASIO. The prevalence of clicking is more pronounced on ASIO
- edit the Hammerfall settings to reduce the Output Level (see screengrab below)