codex

TECHNICAL BULLETIN

ALEXA TIMECODE

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Codex and ARRI Alexa Timecode

When shooting with a Codex Onboard recorder and ARRI Alexa camera it is common to take the timecode embedded in the video stream from the camera.

If you are shooting at a frame rate that is different to the Project Rate set in the ARRI Alexa then it is normal for the timecode displayed on the Codex Onboard to be different to that displayed on the camera. This is because the Alexa always converts timecode to the project rate internally, whereas the Codex displays timecode at the recording framerate.

For example, if the project rate is 24 and you are shooting at 48fps you should expect the timecode displayed on the Codex Onboard to be **exactly half** that displayed on the camera, e.g. a timecode of 01:00:00:00 on the camera and 00:30:00:00 on the Codex. Other combinations of project and record rates will result in different ratios, e.g. a project rate of 24 and a record rate of 60fps is a 1:2.5 ratio and therefore a timecode of 01:00:00:00 on the camera would correspond to 00:24:00:00 on the Codex Onboard.

You can set the Codex to playback at the project rate with the **Options->Play Rate** setting, and you will then see that during playback the timecode reflects that displayed on the camera at the time of recording and you will have a 'slow motion' effect.

When shooting frame rates above 30fps it is normal to see an * (asterisk) symbol next to the timecode frames displayed on the Codex Onboard - this is the SMPTE standard for timecode rates above 30fps, where each frame number appears once as normal and once with the asterisk, indicating a field bit in the timecode sequence.

An example sequence for a 60fps recording is:

01:02:03:28
01:02:03:28*
01:02:03:29
01:02:03:29*
01:02:04:00
01:02:04:00*

Setting the frame rate or timecode rate for files in the VFS

The Codex Transfer Station/Digital Lab system is where you set the rate for the deliverable files that are created. This is done on the **SETUP tab->VFS** screen, shown below. For a given file type select it from the table and click EDIT. Then you can set the Tc Rate/Fps for the files to ensure they are created at the correct rate for the project.
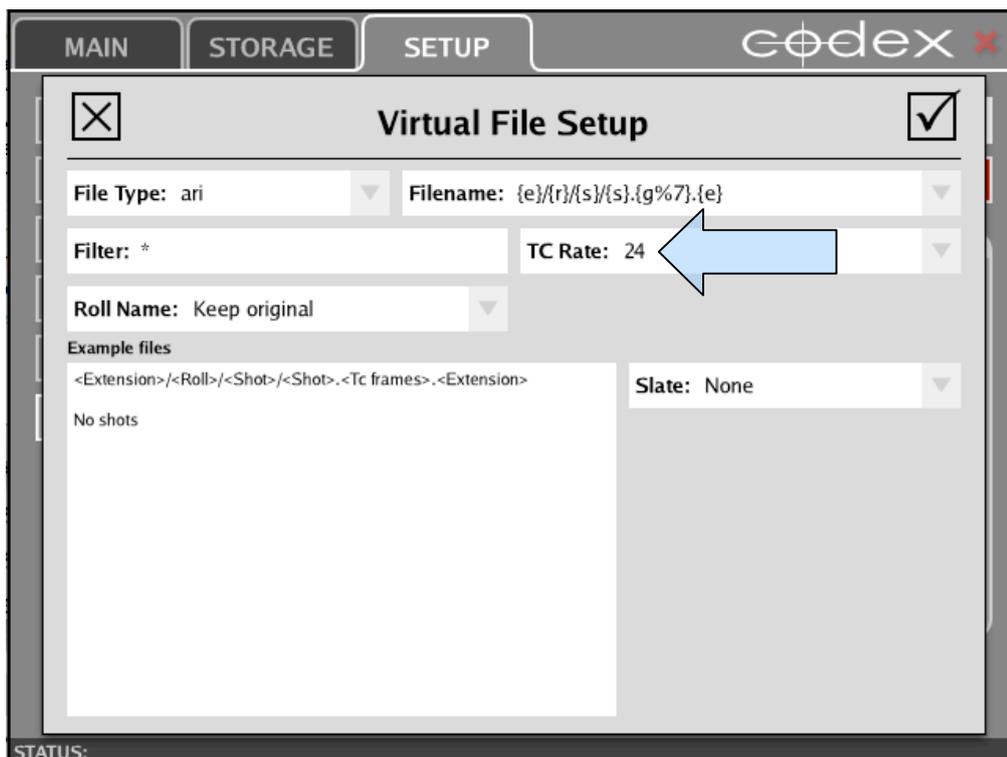
On a Codex VAULT the Generate Task allows you to set the Tc Rate/Fps for file types.