Timecode/Footage Calculator
Version 1.2
by Michael D. Most

This is a handy Windows utility to correlate film footage and video timecode. It can calculate properly using either drop frame or non drop frame code, at the user's choice. After identifying a "sync point" for the film footage, i.e., a timecode number at which the footage will equal 0+0 (feet+frames), the proper footage for any time code can be calculated. In addition, the footage can be entered and the equivalent time code calculated. All film calculations (for 35mm) are based on 24 frames per second, 16 frames per foot.

When the program is started, the sync point defaults to 1:00:00:00 (one hour of non-drop frame time code). The time code display shows "01:00:00:00" and the footage display shows "0+0". The following controls are available:

Buttons:
Enter Timecode
A dialog box will be displayed that allows entry of a new timecode number. Enter the timecode number directly (no colons), i.e. "1000000" for one hour. Clicking on OK enters the new timecode and recalculates the film footage. Clicking on Cancel leaves the old timecode in place. Note: Double clicking on the timecode display will also display the timecode entry dialog box.

Enter Footage
A dialog box will be displayed that allows entry of film footage. The footage MUST be entered in the form "x+xx", where the first x represents the feet (up to 9999), the '+' represents the plus sign, and the second xx represents the frames (up to 15). For the moment, the frames must be entered as '01', '02', '03', etc., up to 15. The feet can be any number, including 0. Clicking on OK enters the new film footage and recalculates the time code. Clicking on Cancel leaves the old footage in place. Note: Double clicking on the footage display will also display the footage entry dialog box.

Sync
A dialog box will be displayed that asks for a timecode entry that will determine the equivalent timecode for 0+0 feet. Enter the timecode number directly, as in the timecode entry dialog box. Clicking on OK recalculates the footage based on the current timecode display. Clicking on Cancel cancels the operation and leaves the old sync point active.

"+"
Allows trim of existing values. Enter either a time code value (without colons) or a footage value (in the form x+xx) and the values displayed will be trimmed by the amount entered. Click cancel to leave the values unchanged.

"-"
Allows negative trim of exiting values. Opposite effect of "+".

Check Box:

Drop Frame Time Code
Clicking on this check box changes the mode to Drop Frame. In order for the changes to be accurate, the sync point must be re-entered (while in Drop Frame mode) and either the footage or timecode re-entered (entering either one will cause the other to be recalculated as well). Note that in drop frame mode, the timecode will be displayed with semicolons instead of colons, as in non-drop mode.

16mm
Clicking on this check box changes the film calculations to reflect proper footage for 16mm film. Calculations are based on standard film rates of 24 FPS, 40 frames per foot.

Changes in Version 1.2:

New Interface! Much prettier, I think - hope you agree.

Keyboard accelerators available for every function on the calculator.

"About" box displays program and version information.

16mm film calculations have now been implemented.

Time code calculations are now **field accurate** when the footage is entered for the calculation. Time code will be displayed either as "normal" xx:xx:xx:xx (for field 1) or as "field updated" xx:xx:xx:xx.1 for field 2. The time code indicates the first video field that will contain the image of the chosen film frame if a normal 24/30, 3:2 pulldown transfer is performed. Field calculations are only accurate if the **footage** is entered directly. If the timecode is entered, the footage displayed is accurate +- 1 frame.

A bug in the entry routines caused the calculator to default to 0 film frames if an invalid time code or footage was entered. This has now been fixed. If an invalid value is entered, a message box is displayed alerting the user, but no values are changed.

Thanks to Microsoft for Visual Basic, which allowed original development of this project in about 2 hours. Note: This program requires VBRUN100.DLL, available separately on this forum, to run.

This is my first real foray into "useful" Windows programming. The company I work for (Encore Video in Los Angeles) has adopted Excel and Word for Windows, and it seemed that having the functions of the calculator available in Windows would be valuable. I'd welcome feedback from any other users who find the program useful, or any suggestions for its improvement. Money will also be graciously accepted....

Enjoy!

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