

TIMECODE LOG CALCULATOR

USER GUIDE

Timecode Logger.exe is a manual-entry logging and calculation tool designed for use in video production environments. It contains time saving features such as automatic time-colon entry, calculated Scene/TRT durations in both *hh:mm:ss:ff* and *frames* as well as error detection routines that flag negative durations, invalid frames and missing data. The tool exports data to printers and/or an XML file and is delivered with sample data to illustrate typical data entry conventions. This file is best viewed on a monitor running in 1024 x 768 pixel display mode. Its display has been successfully tested up through 1600 x 1200 pixels. The file carries a Class 3 Code Signing Certificate to verify the authenticity of its publisher and the integrity of its code.

Excel Requirements / Excel Versions / Operating Systems

Users of this file are assumed to have some operational familiarity with the Microsoft Excel product.

The exe file requires that Excel be installed on a user's system and the exe will run in Excel. The exe was designed, tested and debugged in Excel 2003 SP3 running on a Windows XP Pro SP3 platform. It has also been successfully tested in Excel 2007 and on the Windows 7 64 bit OS. Its forward, backward and lateral compatibility with other versions of Excel and/or other OS platforms not mentioned here has not been verified, although experience with other files built in Excel 2003 has typically demonstrated acceptable performance for *most* features on Excel versions one or more steps (forward or backward) removed from the 2003 version. One documented feature that is *not* backward compatible is the **XML Export** procedure - it is inoperable in *Excel 97* and *Excel 2002* and will produce a non-fatal run-time error as neither of those products support the XML standard.

Trial and Registered Versions

Timecode Logger is distributed in two versions. The **Trial** version permits evaluation of the product for 15-days or 45-openings (whichever occurs first) free of charge on a single computer. The **Registered** version must be purchased and requires *Activation* prior to first use on a single computer (follow instructions in the *Enter Activation Code* window on first opening of the *Registered* version to activate the product). Once activated, the *Registered* product may be run indefinitely on the computer to which it was originally installed. If the computer to which the product was originally installed is modified in any significant way (e.g. a change made to its CPU, Operating System, Hard Drive, Network Adapter) the user will be required to *Re-register* the current copy of *Timecode Logger*. Email randerson@ronandersonservices.com to communicate with us regarding re-registration. Re-registration of a previously activated copy of the product is typically free of charge.

Read Only / Cells Locked / Worksheet Protected / File | Save As...

The file is delivered (a) in Read Only mode, (b) with cells locked that are not dedicated to user-entry and (c) with the worksheet protected. To preserve user-entered data, it is intended that Excel's *File | Save as...* menu option be used to save user modified copies of the original file to a new filename. User copies of the original *Timecode Logger.exe* file made with *File | Save As...* will carry the parent file's executable (.exe) extension but will not inherit the Class 3 Code Signing Certificate from the parent.

Tabs

This file contains three tabs: **TC LOG** (on which user data entry is performed), **XML EXPORT** (on which *TC LOG* data is mirrored for application of XSD schema and XML export) and **USER GUIDE** (you are reading it now). Users can expect to spend virtually all of their time on the *TC LOG* tab. The *XML EXPORT* tab should never be used for data entry of any kind nor should its XML mapping

schema (ProjectData_map) be altered.

Sample Data

The file is delivered with sample data occupying user-entry cells between C2:E8 and A10:L32. The sample data is intended to familiarize users with data entry conventions they may wish to employ with their own data. Sample data may be removed by clicking the *Clear Data* button near the top right of the TC LOG worksheet. Once sample (or user!) data has been removed by the *Clear Data* feature, it cannot be restored with procedures such as Undo / Ctrl+Z. Provided it is not overwritten, the original *Timecode Logger.exe* file can be reopened and will contain the sample data with which the file was originally delivered.

Data Entry

Workflow operates one row at a time, moving left to right. Do not skip rows. Excel navigates from cell to cell, one column to the next, by pressing the TAB key. Tab movements skip over locked cells not intended for user entry. Before beginning data entry, enter **Reel No.**, **Unique ID**, **Media Location**, **Job Title**, **Data Logged By** and **Data Logged Date** information in cells C2:C7. Verify the **Frames Per Second** value in cell C8 (see later discussion of *Frame Rate*) and enter **Format** and **Aspect** data in E7:E8. Begin Item-by-Item data entry at cell C10 - shortcut keys to access this cell from anywhere on the spreadsheet are *Ctrl+Shift+H*.

1. The **Reel No.** in column A automatically inherits the *Reel No.* from C2 whenever *Description* data for a row is entered in column C.
2. The **Item No.** in column B automatically initiates a count whenever data appears in a row's *Reel No.* column.
3. The Description field at column C typically contains user entered data describing an Item's context ("Brooklyn Bridge Curbside", "Brooklyn Bridge B Roll"). Cell height in this field - and fields in columns A, D and E - expands to accommodate extended data input.
4. The Scene field at column D typically contains user entered data on content ("MS Celebrity arrives in car", "B Roll WS City skyline").
5. The **Log Note** field at column E typically contains user entered data on shoot location, shoot date, lighting conditions, audio matters, performance grading, etc.
6. The **Mark-In / hh:mm:ss** field at column F contains user entry of the 6 numbers - without colons - corresponding to the Item's timecode. Colons are added automatically on conclusion of numeric entry. Warning messages display if invalid entries are detected.
7. The **Mark-In / fr** field at column G contains user entry of the number of frames corresponding to the Item's timecode. The field will automatically enter leading zeros for single digit entries (0 will become 00, 7 will become 07, etc).
8. The **Mark-Out / hh:mm:ss** and **Mark-Out / fr** cells store user numeric entry in the same fashion as the *Mark-In* cells.
9. As numeric data is entered to the *Mark-In* and *Mark-Out* fields, both row **Durations (hh:mm:ss fr** Cols J:K and **Frames** Col L) and the **Total Run Time** box at the top of the worksheet recalculate to display current values (assumes Excel Calculation Options are set to *Automatic Calculation*).

Frame Rate

A rudimentary way to work in NTSC/ATSC or PAL is provided in cell C8, in which Frames Per Second are selected. All calculations in the file use this value and, if modified, users will see an immediate change in calculated values. The FPS feature isn't highly sophisticated, it merely causes calculated hh:mm:ss values to vary the seconds value when the number of frames exceeds 29 (for NTSC/ATSC) or 24 (for PAL). The drop down list value in cell C8 for NTSC/ATSC is 30. For PAL it's 25. No need for values such as 29.97 or 23.98 - while they would work, the calculations don't actually split hairs that fine. And the file does not make allowances for DF or NDF.

Calculated 1 Frame Results

When the In and Out Marks for an Item are the same (that is, they have the same hh:mm:ss fr), formulas calculate a Duration of 1 frame.

This may seem counter intuitive but the results are consistent with behaviors observed in NLE systems such as Final Cut Pro. When In and Out Marks for an Item are *not* the same, formulas suppress the phantom 1 frame calculation.

Total Run Time

The *Total Run Time* box at the top right of the worksheet recalculates **hh:mm:ss fr** and total **Frames** in real time to display current values from user data input (assumes Excel Calculation Options are set to *Automatic Calculation*).

Data Validation

The file contains a number of data validation routines within the TC LOG tab to help assure calculation and information integrity.

1. If a value exists on any row of the **Duration hh:mm:ss** column (J10:J84) and a **Reel No. , Job Title , Data Logged By , Data Logged Date , Format or Aspect** cell is empty (C2:E8), the empty cell will highlight red to remind the user to enter the missing data.
2. If a *Mark-In* entry for **hh:mm:ss** is less than its corresponding *Mark-Out* value, the **Duration hh:mm:ss** will display in red.
3. If a frame entry in a hh:mm:ss fr string contains a frame value inconsistent with the Frames Per Second value in C8, the fr cell containing the invalid frames value will display red. Values in **Duration** and **Total Run Time** cells may also display red or return a #NUM! error, depending upon their calculated sums. Using the sample data, change C8 from 30 to 25 and observe the validation warnings that will populate the data.
4. If a *Mark-In* or *Mark-Out* entry for **hh:mm:ss** does not contain 6 numeric characters and/or contains non-numeric characters an **Invalid Input!** message box will display describing the invalid input and the entry will be purged allowing the user to regroup and try again.
5. If the number of rows containing data on the TC LOG tab **exceeds** the number of mirrored data rows on the XML EXPORT tab, a message box appears during XML Export warning the user of this condition. An additional warning appears in XML EXPORT cell G5 to "Add [#] rows of formulae to this tab". Read the paragraph on **Extending the Spreadsheet** at the end of this User Guide and contact the author when modifications to formulas are required to correct the *Message Box* and *Add Formulae* warnings.

Formatting

Cells within the TC LOG worksheet are configured to a variety of specific formats so as to allow for calculation validity, background code processing and to provide for display integrity. Hidden cells are also present. Users should refrain from making alterations to cell formatting.

Print Log

The *Print Log* button near the upper right of the TC LOG worksheet opens a print preview display from which the user can select a Printer and print options. If the print preview is canceled, no output will be sent to the printer. Previews and printouts from this button will contain only those cells in which relevant data has been entered and empty rows will be suppressed.

Export XML

An XML file is a widely accepted data interchange format that allows information systems running in virtually any application on virtually any operating system to share structured data. XML - derived from the term *eXtensible Markup Language* - adheres to a fee-free open standard recommended by the World Wide Web Consortium (W3C). The recommendation contains lexical grammar and parsing requirements. The *Export XML* button near the upper right of the TC LOG worksheet allows the user to export an XML file containing all data on the TC LOG worksheet. An *EXPORT XML TO...* dialogue box and directory tree displays asking for the XML filename and directory path to which the XML file is to be saved. An ".xml" extension will be automatically appended to a user-entered filename for which no extension was defined. If the specified XML filename already exists, the export is suspended and a message box displays to alert the user that filename overwrites

are prohibited to insure XML data integrity. The message box suggests the existing file be deleted with Windows Explorer or a new filename be selected for the XML export. Element tags in the XML file replicate a number of common Final Cut Pro tags, though TC LOG tags are fewer in quantity and have a different hierarchy as compared to FCP. Also, because Excel does not support the concept of *frames* in time calculations, the XML file timecode strings *omit* all numerals pertaining to frames. **Note:** The XML export feature is inoperable in *Excel 97* and *2002* as those products do not support the XML standard. Attempts to run *Export XML* in these earlier versions of Excel will generate an error message that suggests the currently running Excel version may be incompatible with XML exports.

Clear Data

Sample or user data may be removed from the file by clicking the *Clear Data* button near the top right of the TC LOG worksheet. A warning message will display offering the user the options to proceed with or abort the *Clear Data* process. *Clear Data* removes *all* sample or user entered data from the file. Once data been removed by the *Clear Data* feature, it cannot be restored with procedures such as Undo / Ctrl+Z. Provided a file has been saved at some point prior to an unintentional *Clear Data* purge, data up to the point of the previous save can be restored by closing (not saving!) the current file then reopening the same file - however any data input subsequent to the prior save will be lost.

Extending the Spreadsheet

As delivered, the TC LOG worksheet provides for 75 rows of data entry. Because certain row and column data is embedded in underlying code, extending the file to accommodate additional rows and/or columns is more complex than simply invoking Excel's Copy Down or Copy Right features. Please contact the author at the email addresses below for extended versions of this file.

A Word About Malware Caution Notices and Risk Warnings

Timecode Logger is digitally signed with a Class 3 Code Certificate to verify its publisher and guarantee the integrity of its code. This does not, however, make it immune to occasional caution notices or false-positive risk warnings generated by certain malware and antivirus detecting applications. For a discussion of malware caution notices and false-positive risk warnings plus a sample workaround, please visit <http://www.ronandersonservices.com/Page900.htm>.

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