

How to prepare subtitles for Netflix with EZTitles

This manual will show you how to create a TTML subtitles file with EZTitles which meets Netflix's requirements. In the process, we are going to use a short sample file in the SRT format which we have prepared in advance as well as short video clip for pure demonstration purposes. In this manual, we'll go through several steps starting with the setup of the Project Settings in EZTitles, then going through quality control checking and at the end we will export subtitles into TTML file.

I. Project Settings – Set up

So the first step will be to start new Project in EZTitles and ensure that its parameters are set accordingly and conform to the requirements in the current edition of **Netflix' Style Guide**.

Right now we are using **version 4.0 of the Style Guide** and it might be a good idea to double check everything with the most recent edition of the documentation first.

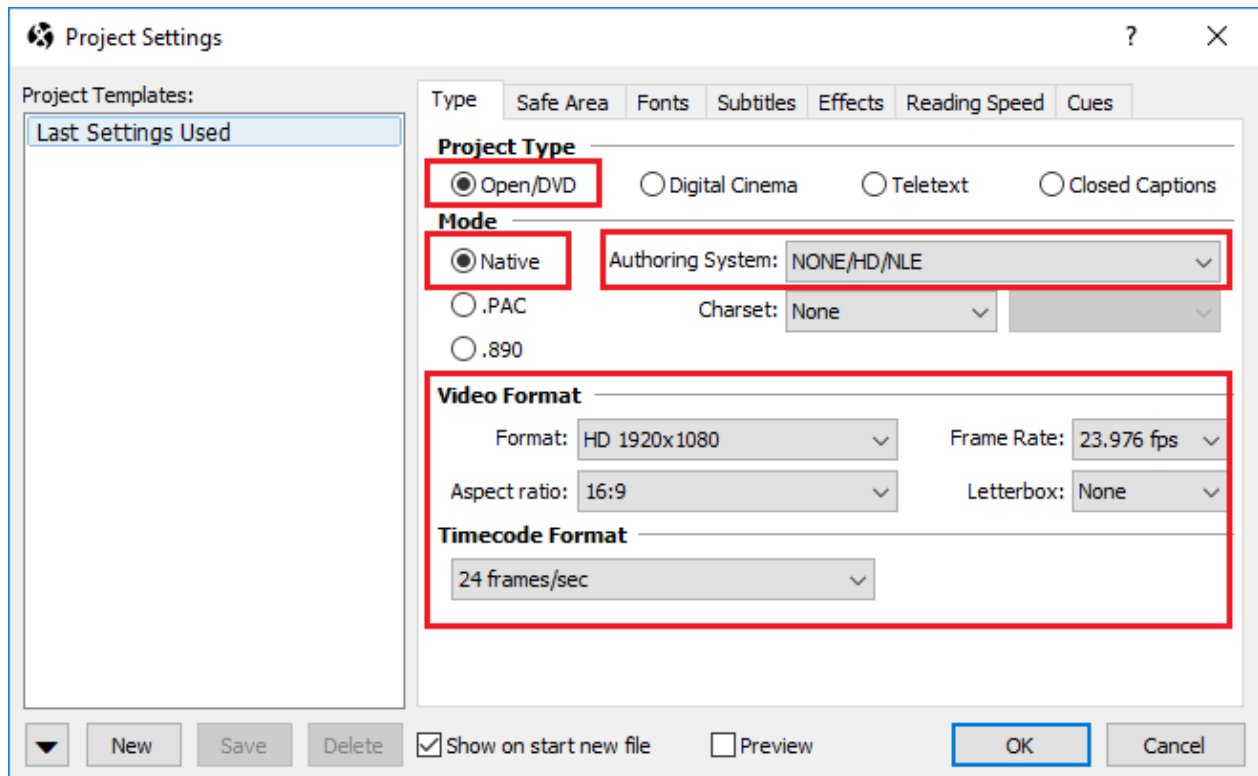
1.1. Project Type

Now let's start EZTitles and open the *File->Project Settings* menu. We need to select

- **Open/DVD** for Project Type;
- **Native** for Mode;
- **None/HD/NLE** for Authoring System.

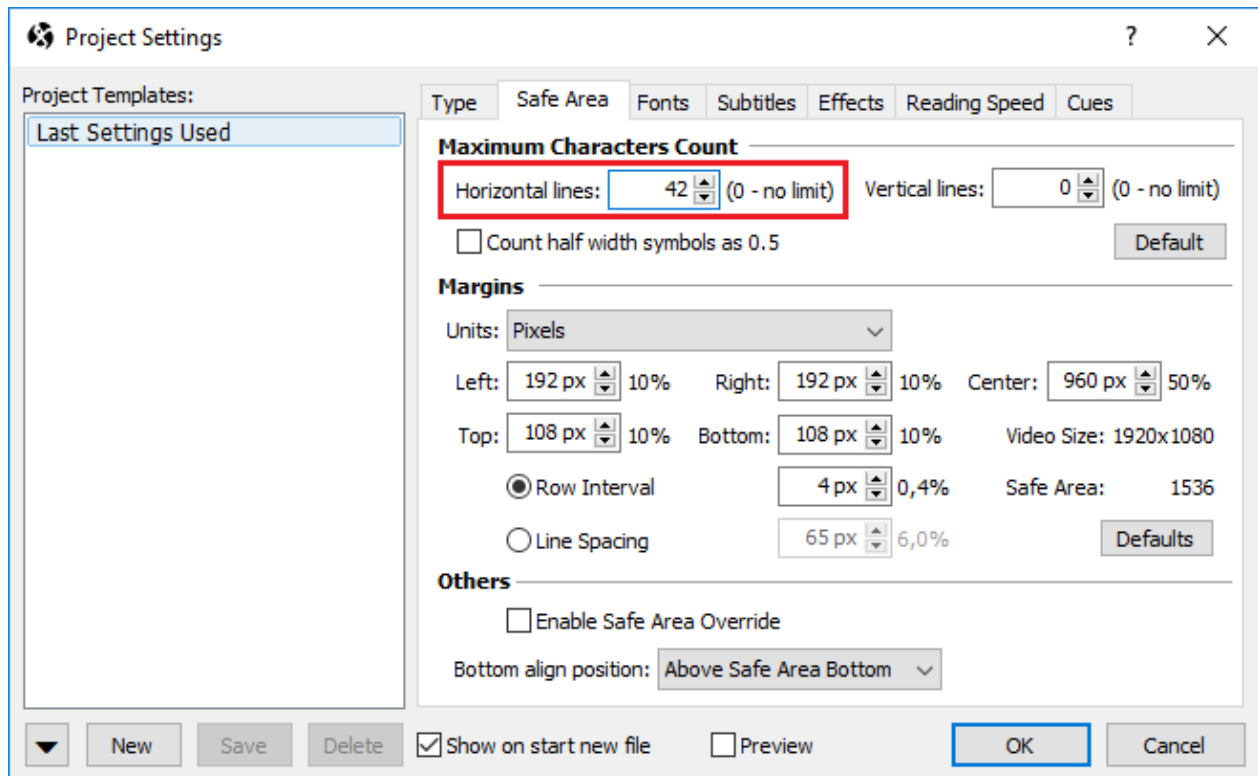
This set of options is best suited for the job we need to do right now, but you can find more about each one of them in EZTitles' full Help.

After that make, sure to select the **Video Format** (resolution), **Frame Rate** and **Timecode Standard** options according to your materials. For the purpose of this manual/video we're going to use video in **1920x1080** resolution running at **23.976fps**. Please note that when the video is running at 23.976fps, **24frames/sec** Timecode Format must be selected:



1.2. Safe Area

Once we're done with these we can move to the *Safe Area* one where we can set the maximum number of characters each one of the text lines in the subtitle file may contain. Please mind that this option may be different for each individual language, so make sure to check with the Style Guide first. In this case we're preparing subtitles in English and that's why we enter **42**:

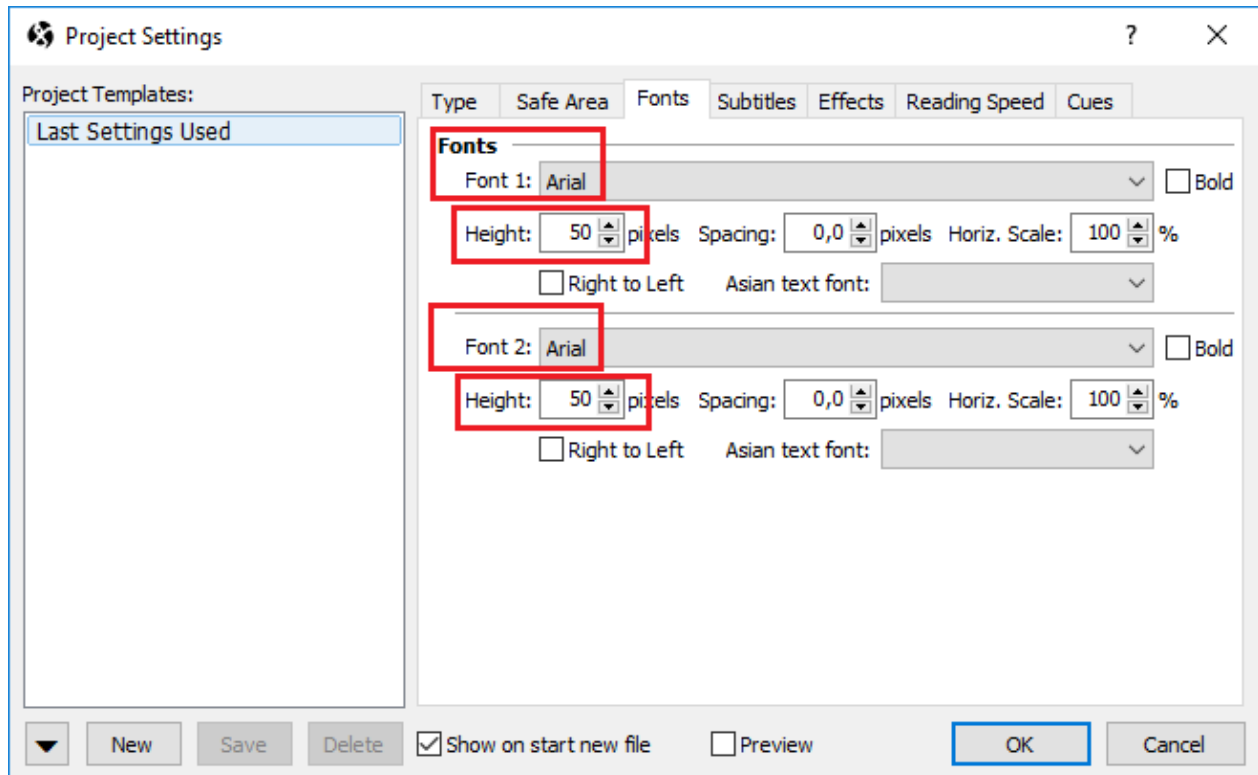


You can leave all of the remaining options to their default values.

1.3. Fonts

From the Fonts menu, we can change the display font and size for the subtitles.

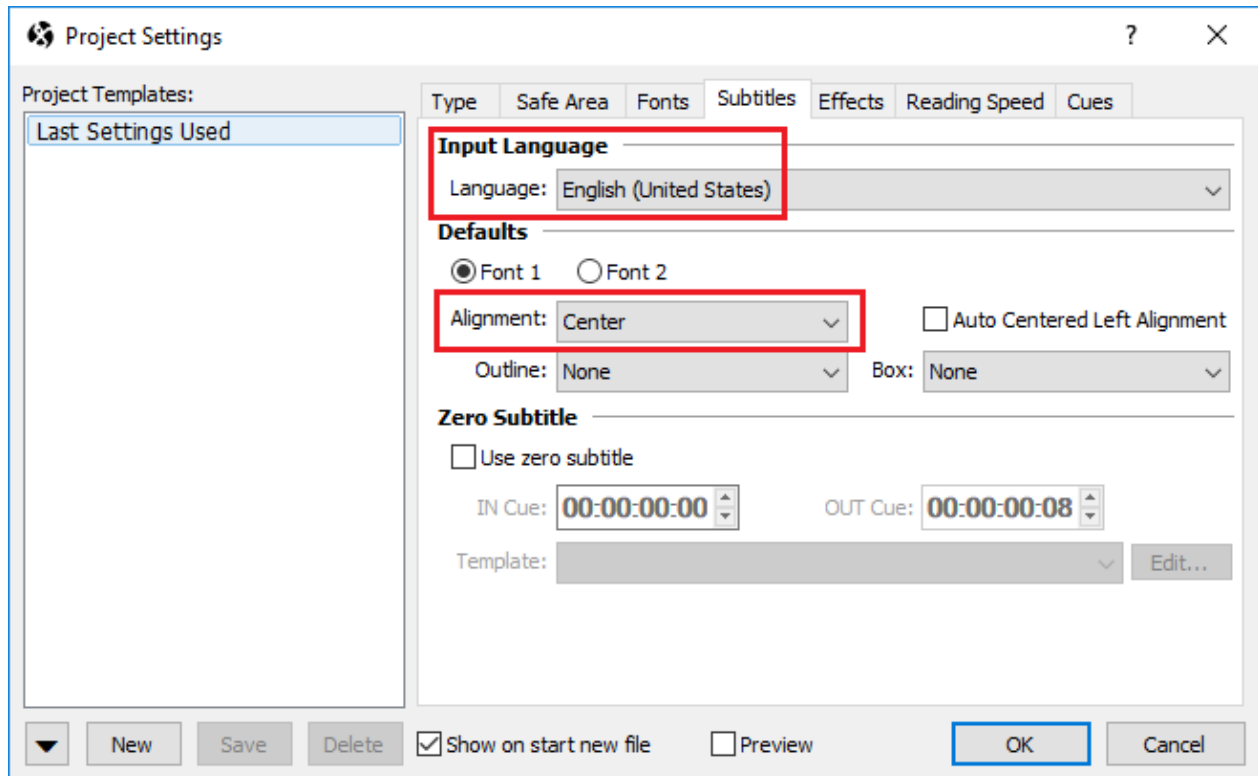
Again, please keep in mind that the choices we make here depend on the requirements for the specific language in the Style Guide. In our case, for subtitles in English, the font must be **Arial** and the chosen size shall allow 42 characters to be entered in one text line. Thus, for project in full HD resolution the font size shall not exceed 52px, all other options may be left to their defaults, like this:



If you're working on subtitles in Arabic or Hebrew you should not forget to also switch the Right to Left option on. Otherwise the punctuation and other characters may appear incorrectly on the screen.

1.4. Subtitles Defaults

From the Subtitles menu, you can select what the default attributes of your subtitles will be. Please make sure that they will be **Centered**, as this is the default text position according to the Style Guide, and also that the **Auto Centered Left Alignment** and **Zero Subtitles** are **switched off**.



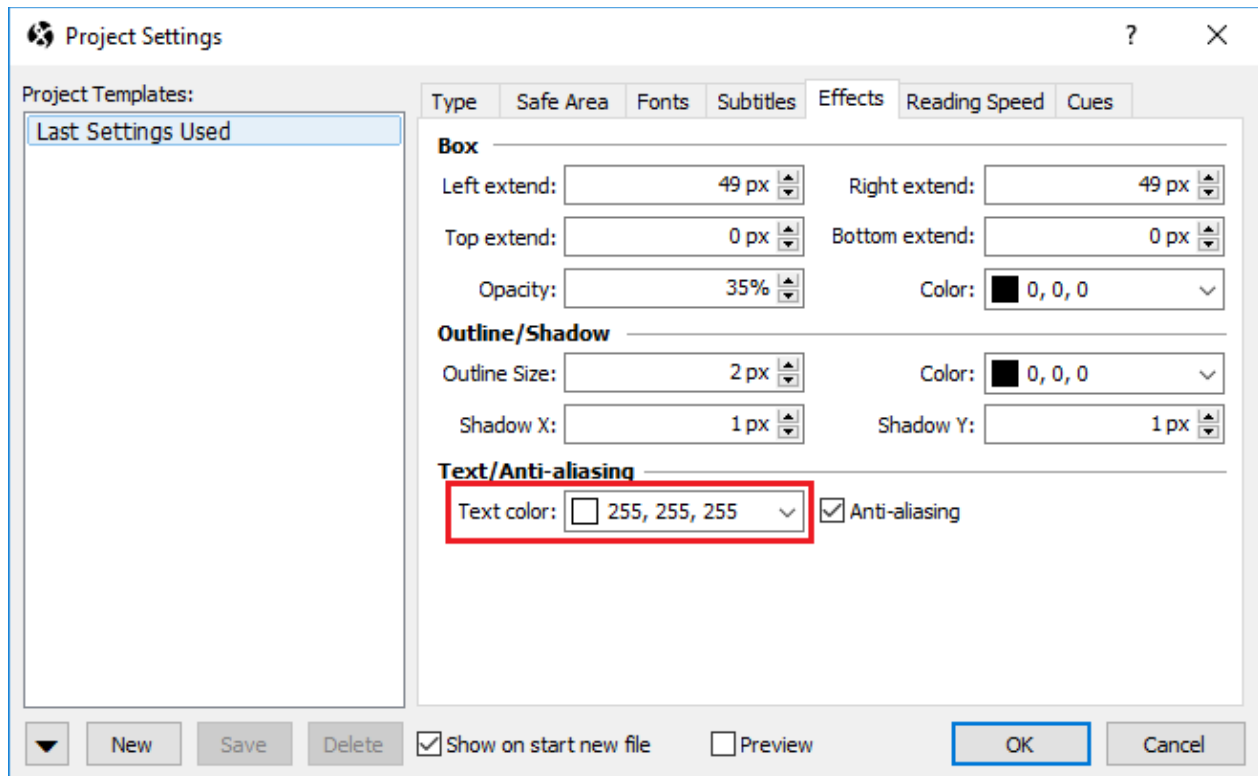
The **Input Language** option is related to the Spell Checking so you can set it to English in this case.

You can choose **Outline** as the default effect but you should also keep in mind that it will affect only the text's presentation in EZTitles for convenience and better readability of the text. The Netflix TTML format currently doesn't support Outline effect.

The Style Guide strictly doesn't allow the use of **Box** effect and you should leave it switched off, unless you are instructed otherwise.

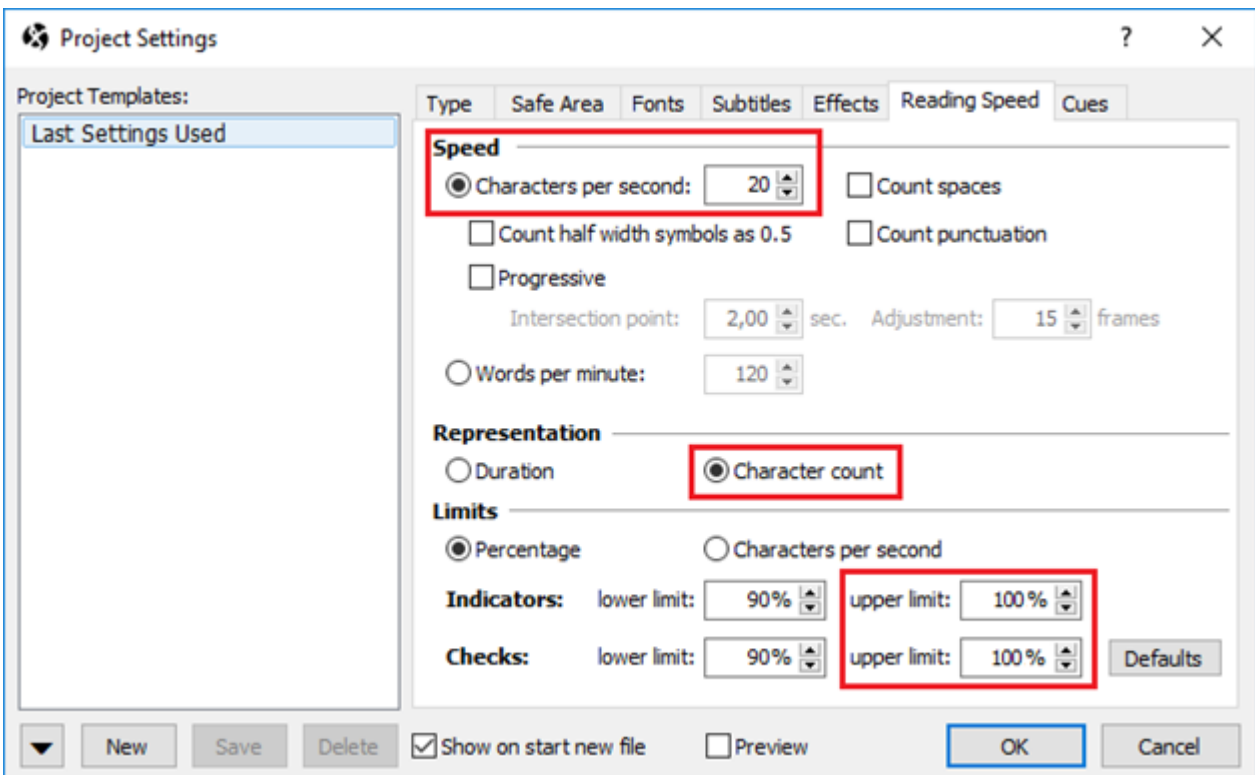
1.5. Effects

Next will be to choose the default color for the subtitles you insert in the file. So go to *Effects* and set the **Text Color** option to **White (255,255,255)**.



1.6. Reading Speed

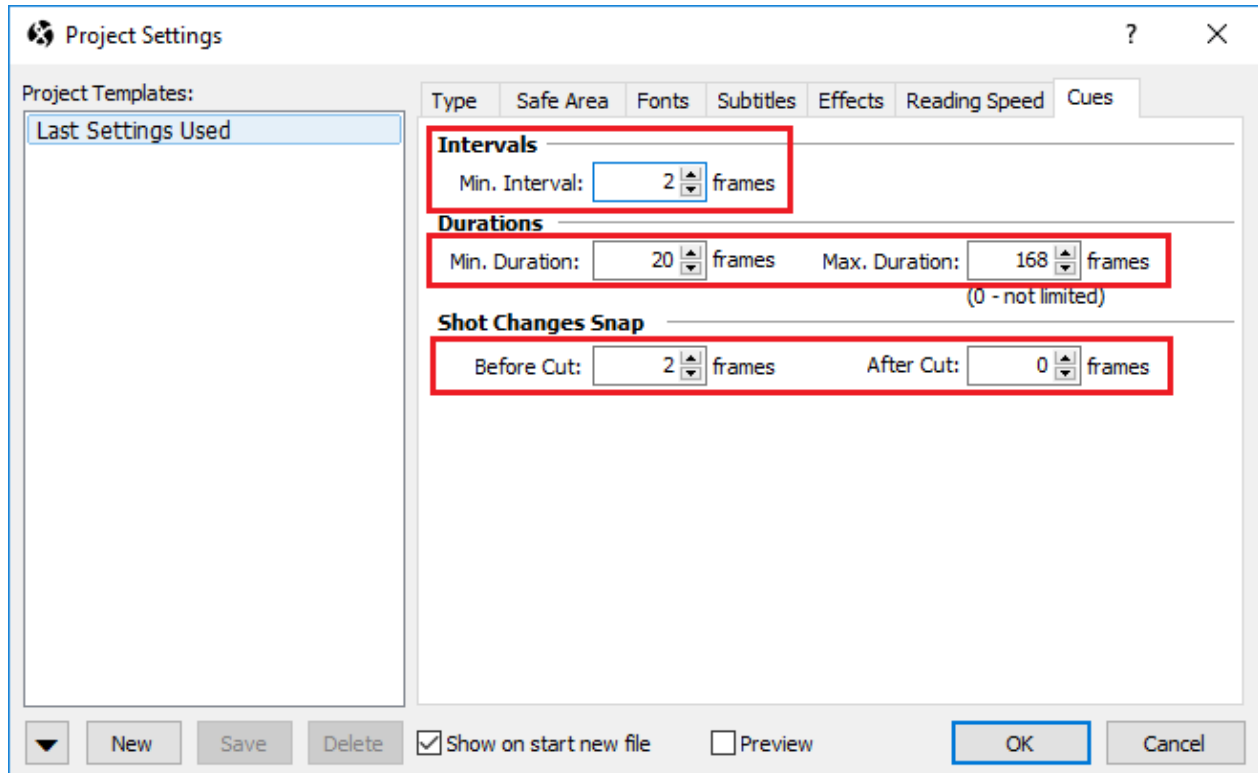
The *Reading Speed* menu allows you to set the desired for your subtitles reading speed. Reading speed can be measured as both **Words Per Minute** (WPM) and **Characters Per Second** (CPS) but the particular values you need to enter depend on the specific requirements for each particular language and target audience. In this case we enter **20 CPS**.



We recommend using **Character Count** as the representation option and also setting the **Upper Limits** for both the Indicator in the editor and the Checks to **100%** to ensure that there are no subtitles exceeding the specified Reading Speed.

1.7. Cues

And finally, you may need to verify the contents of the *Cues* menu and define what the **Min. Interval** between subtitles, **Maximum** and **Minimum Duration** of a subtitle should be as well as the parameters for subtitles snapped to a Shot Change. According to the Style Guide, the **Min. Interval should be 2 frames**.



And regarding the snapped to shot changes subtitles we need to follow the rule below:

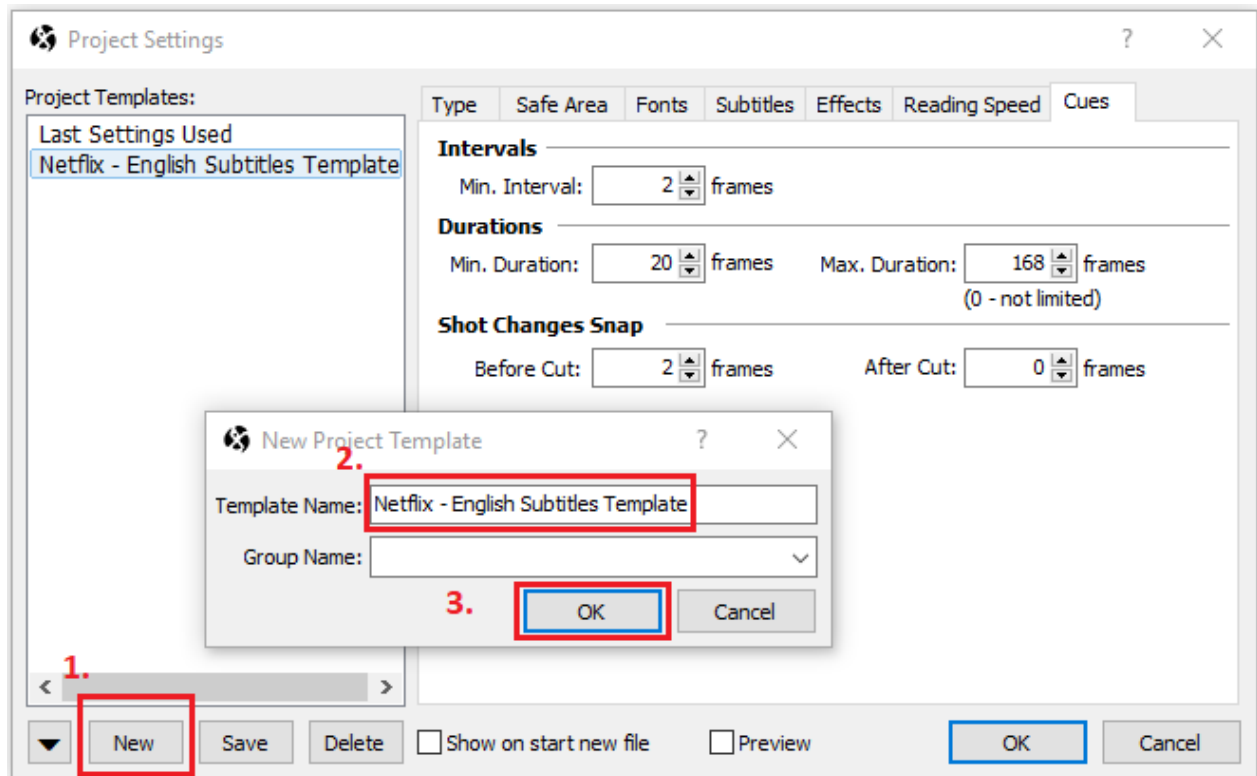
"In the case of continuous dialogue, subtitles should begin on the shot change and end 2 frames before the next shot change."

So, we need to set the **Before Cut** interval to **2 frames** and **After Cut** to **0 frames**.

Configuring the **Min/Max Duration** parameters might appear a little tricky at first because the Style Guide gives them in "seconds" while in EZTitles they are measured in "frames". But calculating from seconds to frames is quite easy in fact. The Timecode Format that we set in the beginning will give us the number of frames there are for one second and in this case, we have 24 frames per second. So, the Min. Duration = $\frac{5}{6} * 24 = 20$ frames, respectively the Max. Duration = $7 * 24 = 168$ frames.

Right now, the *Project Settings* have been properly set up we can continue with the next step – to perform couple of *Quality Control* checks on the subtitles file and verify that it meets all requirements of the Netflix Style Guide. But before that it might be quite useful to create **Project Settings Template** which we could load in any later point if we need to check or create subtitles complying with the same requirements.

To do so simply go to the *Project Settings* menu again, click on the *New* button there, enter a name for the **new Template** and press *OK* to save it.



Then when you want to load the same template, simply select its name on the left side pane and press the *OK* button on the *Project Settings* menu to confirm the action.

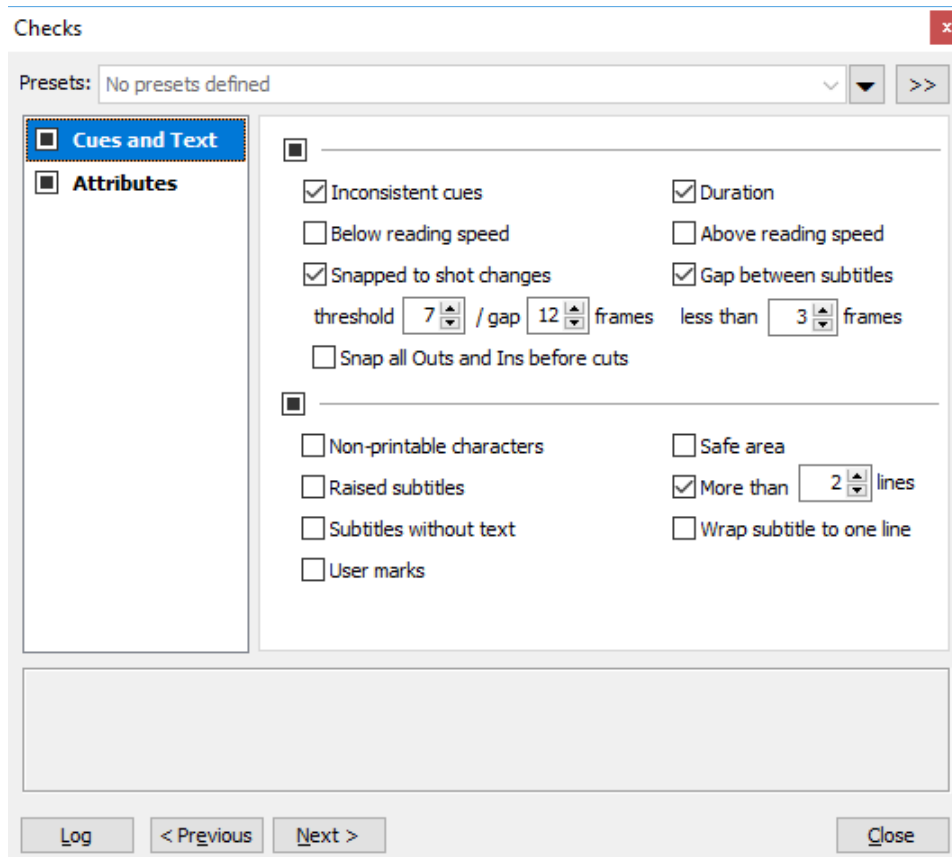
For more information, how to create or import subtitles from external file and how to load a video clip in EZTitles you may refer to the program's full manual or check our dedicated video tutorial here: <https://www.youtube.com/watch?v=ZbSU-Ey7EBw>

II. Quality Control

2.1. Verification

No matter if you are working on the subtitles from the scratch or you are loading them from a previously created file we recommend you to run couple of *Checks* before you export them into a new file. EZTitles offers quick and easy to use way to verify against multiple issues simultaneously.

To perform a quality control check, go to *Titles->Check Subtitles* where you should first select the required criteria.



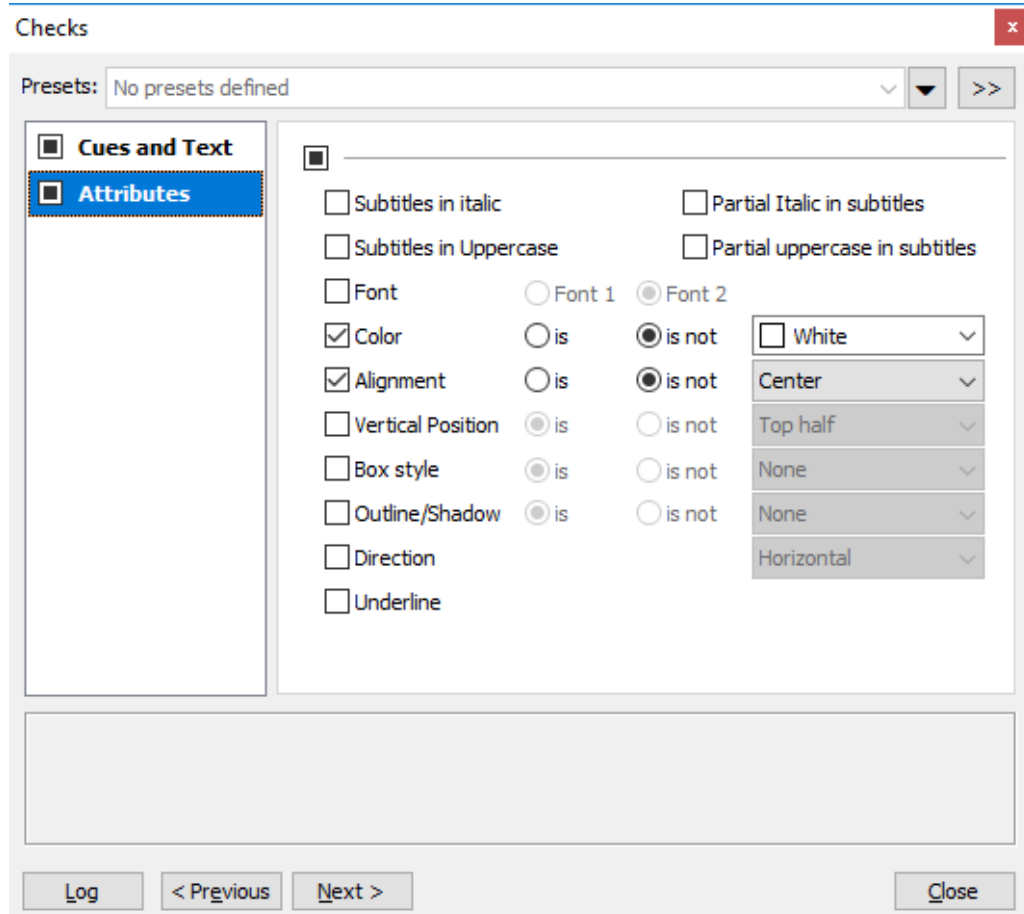
In this case we are working on subtitles which will be delivered to Netflix so you may want to use the following:

- **Inconsistent Cues**- this is a basic check against subtitles with overlapping In/Out cues which are in general unacceptable;
- **Duration** – verifies that there are no subtitles longer or shorter than the **Min/Max Duration** parameters specified earlier;
- **Above Reading Speed** – checks if there are subtitles which exceed the reading speed limits set earlier. In other words, if there are subtitles which are unnecessary long;
- **Below Reading Speed** – checks for subtitles which are under the reading speed limits, i.e. subtitles which remain on the screen for too short and the viewer might not read them;
- **More than 2 lines** – verifies that there are no subtitles containing more than 2 text lines;

- **Gap between Subtitles less than 3 frames** – checks for subtitles set on distance greater than the specified **Min. Interval** but still appear close to each other and eventually might be better off if they are snapped to the Min. Interval.

And just to be on the safe side you can also use the options from the *More Checks* section to verify that all subtitles are aligned to the center of the screen and are white in color:

- **Color is not White** – checks for subtitles which are not White in color;
- **Alignment is not Center** – checks for subtitles which are not aligned to the center of the screen.



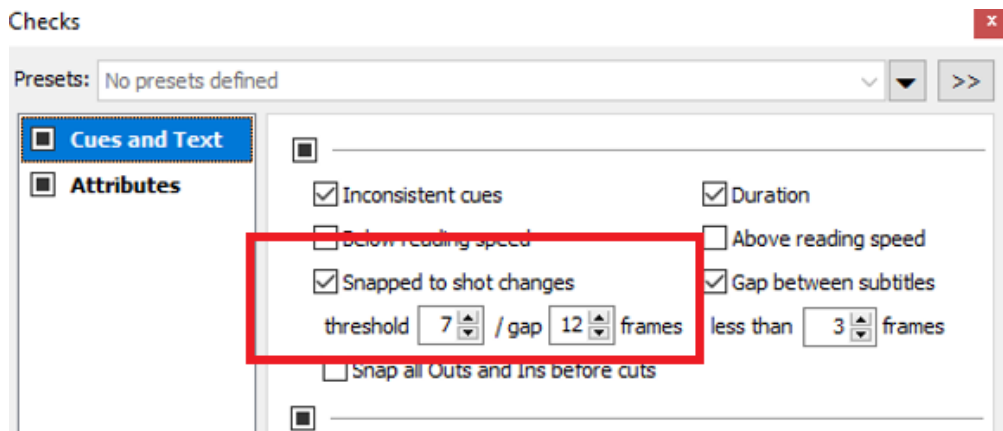
There are the *Previous* and *Next* buttons which will help you navigate through all subtitles which are found as problematic and by pressing the *Log* all problematic subtitles will be send to the so-called *Log List*.

2.1.1. Subtitles snapped to Shot Changes

As it comes to Shot Changes, two rules apply:

- If dialogue starts(*ends*) **7 frames or less**, “**red zone**”, before(*after*) the shot change, the in-time(*out-time*) should be moved to the shot change (*respecting the two-frame gap*).
- If dialogue starts(*ends*) **between 8-11 frames**, “**green zone**”, before(*after*) the shot change, the in-time(*out-time*) should be moved up to 12 frames before(*after*) the shot change.

To verify if your subtitles comply with both rules above, you have to first set Before and After Cut intervals as explained in [section 1.7 Cues](#) and then to correctly configure the **Snapped to Shot Changes** option for Check Subtitles:



Threshold value defines what is the **“red zone”*, as Netflix call it. If any subtitles start or end in it, they need to be moved to the shot change or two frames after the shot change.

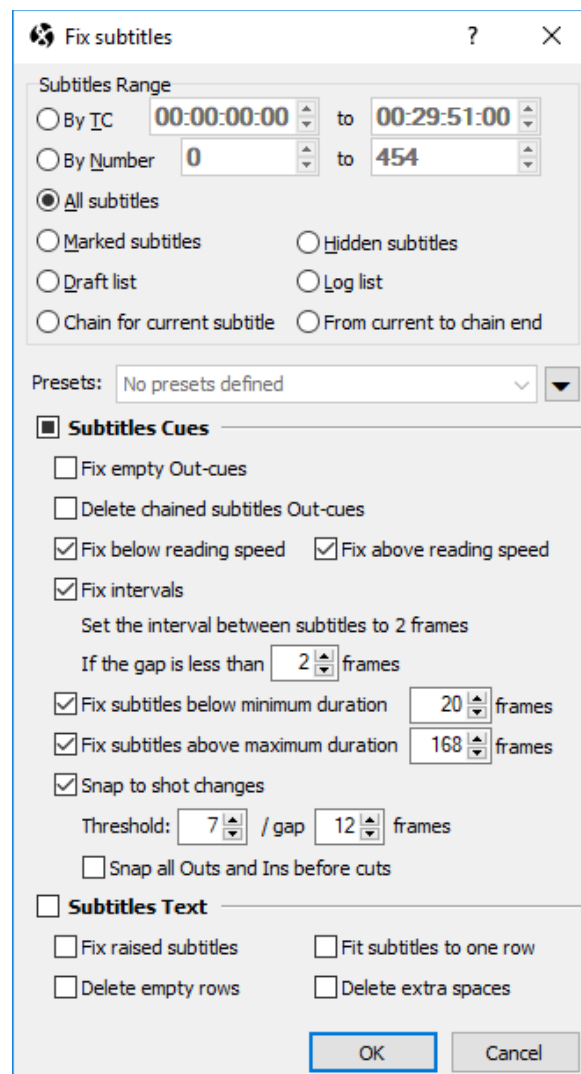
Gap value, on the other hand, defines the **“green zone”*. If a subtitle starts or ends in it, it needs to be moved 12 frames before or after the shot change.

* Definition of the *“green”* and *“red”* zones rule can be found in:
[Netflix’s Timed Text Guide: General Requirments guide](#)

2.2. Fixing subtitles with issues

After running the checks, we'll have pretty good idea about the subtitles which don't comply with the Style Guide requirements and instead of modifying them by hand, one by one we can use the **Titles->Fix Subtitles** options.

First you need to select the range of subtitles for which the *Fix Subtitles* options will be applied. As you can see there are plenty of options like *All Subtitles*, those in the *Log* or *Draft* lists, etc. Right now, we're going to *Fix* only the subtitles in the **Log** list, those we already identified that have some sort of issues:



- **Fix Below/Above reading speed** – automatically adjusts the subtitles' Out cue if the subtitle doesn't meet the Reading Speed parameters and is reported as Below/Above the Reading Speed limits set on the Project Settings menu;
- **Fix Intervals** – changes the distance between the subtitles to match the **Min. interval** if the distance is less than specified threshold interval;
- **Fix subtitles below/above min./max. duration** – automatically adjusts subtitles' Out cue if the duration is above the maximum or below the minimum duration parameters specified at the Project Settings menu;
- **Snap to Shot changes** – similarly to the Check Subtitels option, threshold value defines the “red zone” and Gap value – the * “green zone”. Subtitles which start or end in the “red

zone” will be moved to the shot change or two frames after it. Subtitles which start or end in the *”green zone” will be moved 12 frames before or after the shot change.

*Definition of “green” and “red” zones rule can be found in:

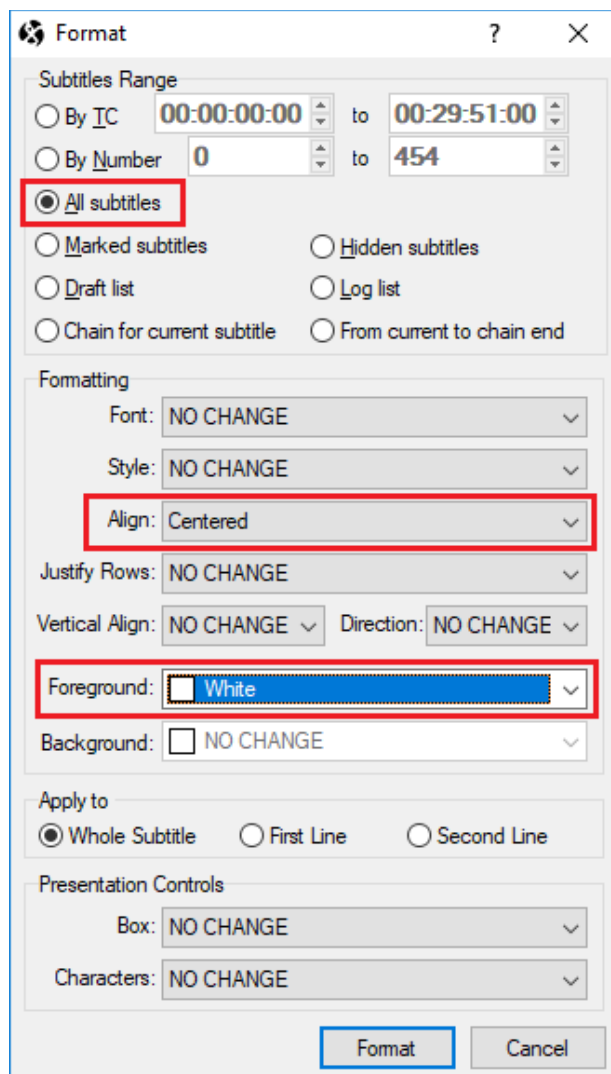
[Netflix’s Timed Text Guide: General Requirments guide](#)

Please keep in mind that sometimes it might not be possible for EZTitles to automatically adjust all subtitles, there might be really complicated situations with two or more options conflicting with each other. That's why we always recommend running another *Check* and eventually fixing these subtitles by hand.

Both the *Check Subtitles* and *Fix Subtitles* enables you to save the activated options as Presets for later use.

Subtitles reported by the *Check Subtitles* function as not aligned to the center or such in different color can easily be formatted back to the preferred style by using the *Titles->Format* options.

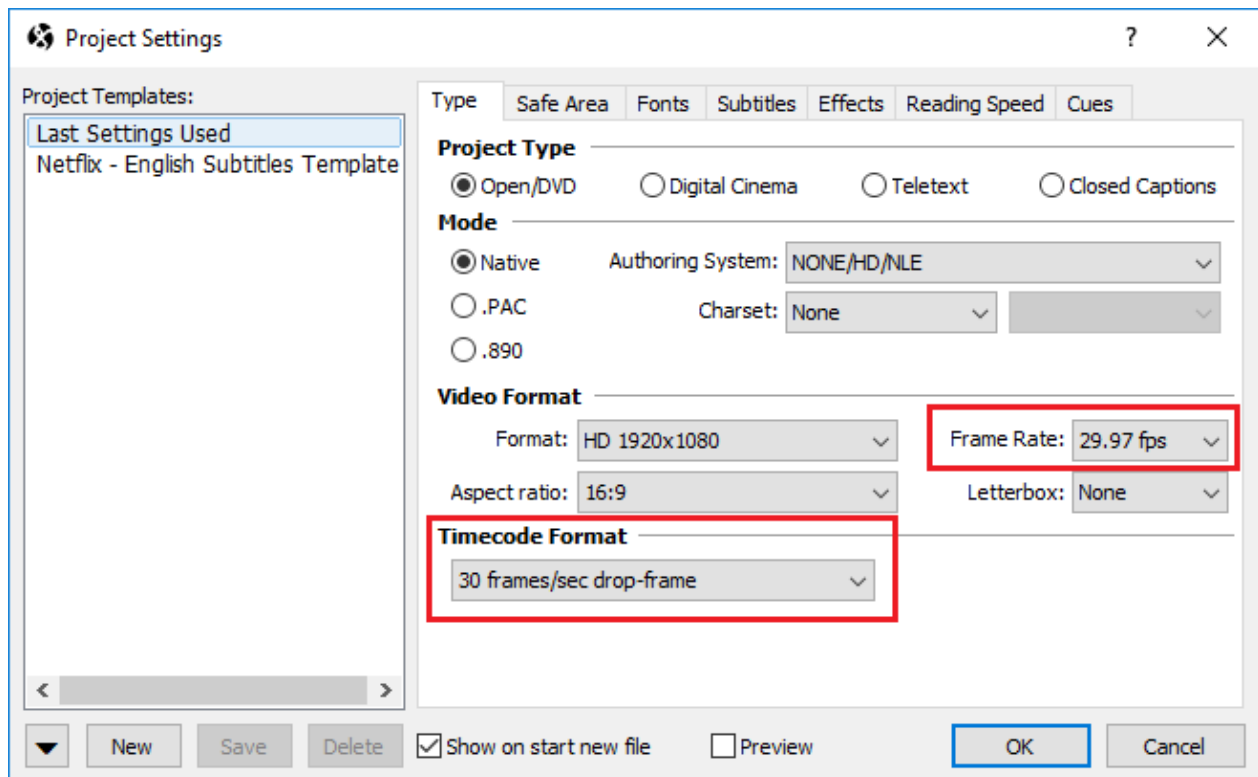
Considering that all subtitles in the output file must be positioned to the center and contain only white text it would be better to change the alignment and color for all subtitles, just to be on the safe side, like this:



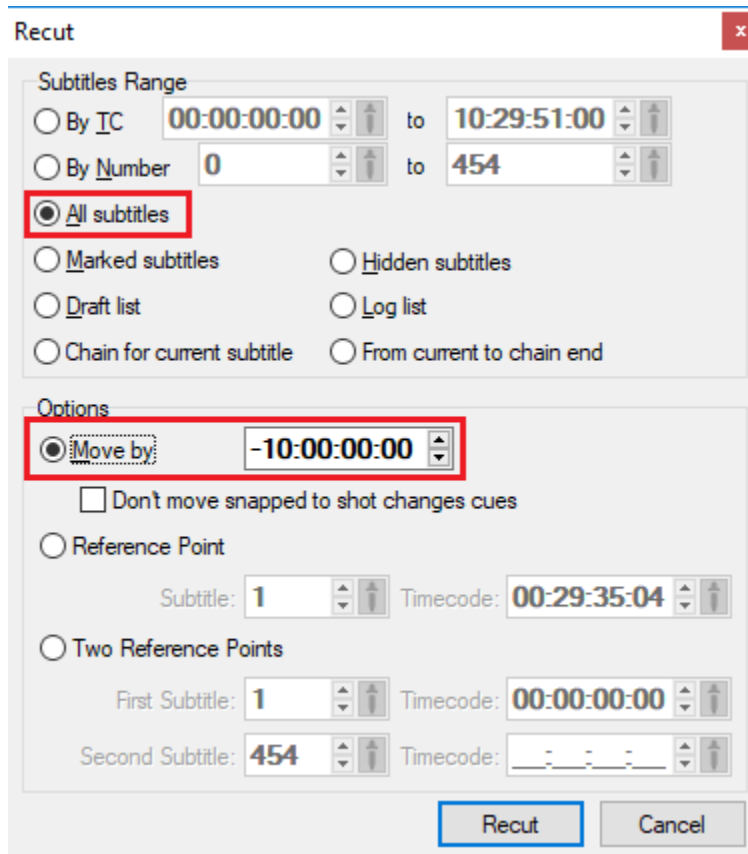
2.3. Timecode conversion and adding/removing offset

It isn't so rare to receive subtitles which have to be converted to different frame before they can be used and EZTitles can help you once again with the conversion.

First the subtitle file needs to be loaded in a Project which matches the original frame rate and time code format. So for the next example we will use subtitle file originally created for video running at **29.97fps Drop-Frame** timecode and the Project Settings needs to be adjust like this:

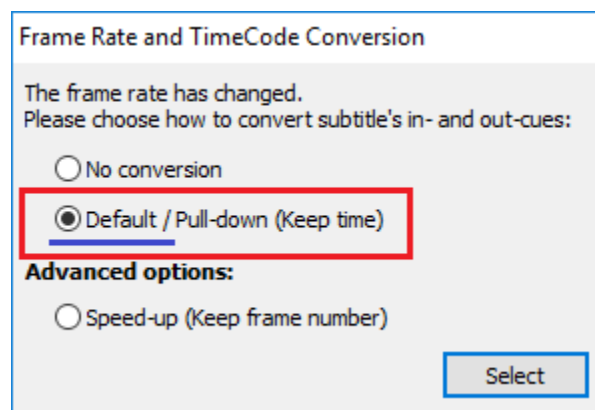


After that it is important to check the timing of the subtitles and in case they don't start from **00:00:00:00** it might be better to Recut them before running the conversion using *Titles->Recut*.



After that open, the Project Settings again and change the Frame Rate and Timecode Format to match the desired values. In this example, we are performing conversion from **29.97fps DF** to **23.976fps** and **24frames/sec Timecode**.

When you press the OK button, another dialog will pop up asking you to choose conversion method. Although there are couple of ways to process the conversion we suggest to always use the one listed as **Default**, like this:



After we are finished with the frame rate conversion we should check if the subtitles are nicely synchronized with the video.

If it turns out that there is a constantly increasing drift between them, for example couple of frames in the beginning of the clip and one second or more towards the end, the *Recut* options can be used to correct this as well.

Please mind that such drift should not be mistaken with the natural difference between the Media Time and Timecode indications which may occur for videos running in 23.976fps and 29.97fps NDF. EZTitles uses SMPTE Timecode and to avoid confusing with the Media Time you should always check the burnt in the picture indication for Timecode.

In our scenario, we need to figure out which is the correct time for displaying the first and last subtitles in the file. After that open *Titles->Recut* and select the option to perform the recut operation by **Two Reference Points**:

Recut

Subtitles Range

By IC 00:00:00:00 to 10:30:28:24

By Number 0 to 454

All subtitles

Marked subtitles Hidden subtitles

Draft list Log list

Chain for current subtitle From current to chain end

Options

Move by +00:00:00:00

Reference Point

Subtitle: 1 Timecode: _: _: _:

Two Reference Points

First Subtitle: 1 Timecode: 00:00:18:22

Second Subtitle: 454 Timecode: 00:30:21:24

Recut Cancel

The program will then automatically recalculate all subtitles between Subtitle 1 and Subtitle 430 and most probably they will play in synch with the video after that. Sometimes, however, this might not be enough and a few **Recut by Two Reference Points** operations, might need to be executed before the subtitles play in fine synch.

If the subtitles are drifting by a constant offset from the beginning to the end, then a single **Recut by Reference Point** for the first subtitle in the file will be enough. Again, we need to find when Subtitle 1 needs to be displayed and use this timecode for the Recut:

Recut

Subtitles Range

By IC 00:00:00:00 to 10:30:28:24

By Number 0 to 454

All subtitles

Marked subtitles Hidden subtitles

Draft list Log list

Chain for current subtitle From current to chain end

Options

Move by +00:00:00:00

Reference Point

Subtitle: 1 Timecode: 00:00:18:22

Two Reference Points

First Subtitle: 1 Timecode: 00:00:18:22

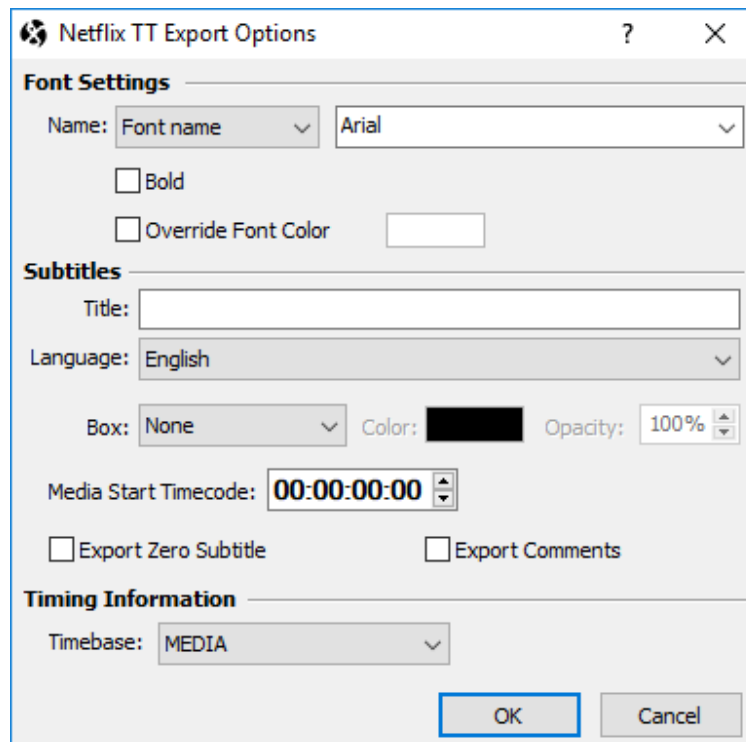
Second Subtitle: 454 Timecode: 00:30:21:24

Recut Cancel

III. Exporting TTML file for Netflix

Once we checked everything, if the subtitles play in perfect synchronization with the video, if there are subtitles which doesn't meet any of the specific requirements, we can proceed forward and export compliant TTML subtitles file.

Press on *File->Export* and select the **Netflix Timed Text (NLFX-TT)** option from the list. Then the related Netflix Timed Text export options dialog will pop up asking you to specify just a few things before the TTML file has been created.



The screenshot shows a dialog box titled "Netflix TT Export Options". It is divided into three main sections: "Font Settings", "Subtitles", and "Timing Information".

- Font Settings:** Includes a "Name" dropdown menu set to "Arial", a "Bold" checkbox (unchecked), and an "Override Font Color" checkbox (unchecked) with an empty color selection box.
- Subtitles:** Includes a "Title" text field, a "Language" dropdown menu set to "English", a "Box" dropdown menu set to "None", a "Color" selection box (black), an "Opacity" spinner set to "100%", and a "Media Start Timecode" spinner set to "00:00:00:00". There are also two checkboxes: "Export Zero Subtitle" (unchecked) and "Export Comments" (unchecked).
- Timing Information:** Includes a "Timebase" dropdown menu set to "MEDIA".

At the bottom right of the dialog are "OK" and "Cancel" buttons.

Please make sure to select the correct language from the respective drop-down menu. Otherwise if the language is not correct Netflix's automated QC system will reject the file.

Usually all delivered subtitles must start from the 00:00:00:00 and if you have missed to *Recut* them earlier, you can do that from the export menu by entering the Start Timecode of your video in the **Media Start Timecode** field. And if you have already *Recut* your subtitles or they don't need to *Recut* at all, please mind to enter 00:00:00:00 for it to prevent any modifications of the timing in the output file.

Selecting the correct **Time Base** is also very important. You can determine whether to use **Media Time** or **SMPTE Timecode** by checking with the Netflix guide on this subject:

<https://backlothelp.netflix.com/hc/en-us/articles/215131928-How-do-I-know-whether-to-use-SMPTE-or-MEDIA-in-the-manifest-for-timing->

All other options can be set to their default values or to be modified upon your own preference and requirement.