

2.5 Preparing Subtitle Data

There are two ways to add subtitles in ReelDVD, either with ReelDVD's convenient built-in Subtitle Editor, or by preparing them in an external graphics application and then importing them into your DVD title. This section provides information on how to prepare subtitle assets outside ReelDVD. For a detailed explanation of how to create subtitles from within ReelDVD, see Section 3.3.3, "Adding Subtitles with the Subtitle Editor".

Use the following guidelines when creating subtitle assets for import:

- Use a graphics program to create subtitle images, and save the files as Photoshop (PSD), TIFF, JPEG, GIF, BMP, or PICT format.
- Use a maximum of four colors (red, blue, black and white).
- The image size should not exceed 720 × 480 (NTSC) or 720 × 576 (PAL) pixels.
- Save all of the image files in the subtitle stream as the same graphics format, and in the same directory.
- Keep a record of subtitle names, stream numbers, and corresponding start-time and end-time codes.

2.5.1 Subtitle Color Mapping

The subtitle color mapping process is similar in principle to menu subpicture color mapping.

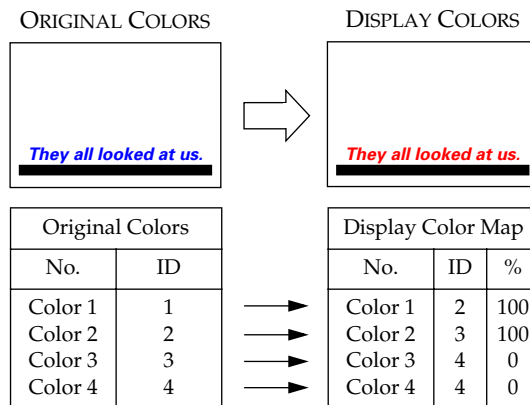


Figure 2-4 Depiction of subtitle color mapping

2.5.2 Creating a Subtitle Script File

The next step is to create in a text editor a subtitle script file (.sst) that instructs ReelDVD which subtitle settings to use for a particular sequence of subtitle images. Figure 2-5 shows an example of a subtitle script file.

```

st_format 2
Display_Start    non_forced
Pixel_Area      (2 479)
Display_Area    (0 2 719 479)
Color           (1 3 4 4)
Contrast        (0 15 15 0)
E2              (0 0 255 ==)
E1              (255 0 0 ==)
PA              (0 0 0 ==)
BG              (255 255 255 ==)
directory       D:\QST_Assets\subtitles
#####
SP_NUMBER  START      END      FILE_NAME
1          00:01:17:00 00:01:19:05 subtitle.1.tif
2          00:01:19:06 00:01:21:09 subtitle.2.tif
3          00:01:21:10 00:01:23:20 subtitle.3.tif
4          00:01:23:21 00:01:26:10 subtitle.4.tif
5          00:01:26:11 00:01:28:17 subtitle.5.tif

```

Figure 2-5 Subtitle script file

2.5.3 Subtitle Naming Conventions

The name you give to a subtitle image is important. ReelDVD registers subtitle images sequentially, as subpictures, within a subtitle asset folder it creates. The name of a subtitle identifies the image, its location within the subtitle sequence, and the type of image it is.

Use the following convention when naming a subtitle image:

ImageName.subpicture#.ImageFormat

For example, a motion video clip named Twilight has one subpicture stream with a series of 150 subtitles. All of the images have been created in the TIFF image format. The images would be named:

Twilight.1.tif
 Twilight.2.tif
 Twilight.3.tif

...and so forth.

The 150th image would be named Twilight.150.tif.

2.5.4 About the Script File Settings

The definitions for the script file settings are as follows:

- st_format** The identifying number of the subtitle data stream. ReelDVD currently supports subtitle format 2 only.
- Display_Start** The options are Forced or Non_Forced. When set to Forced the subtitles are always On; Non_Forced means the On/Off feature on the DVD player remote control can be used to turn subtitles On or Off.
- Pixel_Area** The size of the background area for the subtitle image.
For NTSC, set to (2, 479).
For PAL, set to (2, 576).
- Display_Area** The location of the subtitle image within the background area.
For NTSC, set to (0 2 719 479).
For PAL, set to (0, 2, 719, 574).
- Color** Color codes for the four colors available for subtitle images, selected from the 16 colors in the color palette. Each number corresponds directly to a color in the palette.
- Contrast** The degree of subtitle color contrast. The range is 0 to 15, where 0 is transparent and 15 is opaque.
- E2** The colors you use in the original subtitle graphic are identified by ReelDVD and mapped to the colors specified in the color setting. Each of these four colors correspond to a subtitle color used in ReelDVD, as follows:
E1
PA
BG
- E2 [Outer Edge].....Color 1
E1 [Inner Edge].....Color 2
PA [Face]Color 3
BG [Background].....Color 4
- Set the definition as follows:
E2 (0 0 255 ===)
E1 (255 0 0 ===)
PA (0 0 0 ===)
BG (255 255 255 ===)

The first three positions are the RGB settings, respectively. The "===" (equals) signs in the fourth position of the setting tell ReelDVD that the color must match exactly.

directory	<p>The directory path to the subtitle image files.</p> <p>Note that if the directory path is changed after the subtitle script file is created (if the subtitle folder is moved to a new location), ReelDVD will not be able to locate the subtitle folder. In that case, you will need to edit the directory path in the subtitle script file to set the correct path.</p>
separator	<p>The separator line separates the settings from the list of subtitles. You must use at least two # signs in this line.</p>
Subtitle list	<p>This is the actual list of subtitles that ReelDVD imports into the subpicture stream. Note that START and END timecodes should not overlap, and that subtitles should not cross chapter breaks in a video track.</p>
SP_NUMBER	<p>The number of the subtitle in the subtitle stream.</p>
START	<p>The start time of the subtitle.</p> <p>00:01:05:00 = hour:minute:second:frame</p>
END	<p>The end time of the subtitle.</p> <p>00:01:07:05 = hour:minute:second:frame</p> <p>All subtitles that have an end time are defined as Simple subtitles; place a “-” (dash) instead of a timecode in the END field to set a subtitle to Infinite. See Section 2.4, “Subpictures” for a description of the Simple and Infinite settings.</p>
FILE_NAME	<p>The name of the subtitle. Note that there is a naming convention you must use when creating subtitles. See Section 2.5.3, “Subtitle Naming Conventions” for details.</p>