Export text-based data from your videos into easily deployable XML

In Brief:
Product: Cambria FTC Encoder
Feature: Optical Character Recognition
**Description:** Converts text in your videos into XML data

What is it?

A Cambria FTC analysis module that can detect and recognize text from within videos, including end credits, text in slates, score changes in athletic matches, text on slides from PowerPoint and Keynote, and any other text embedded within the video.

How can I use the XML?

Most customers deploy the XML within their own database systems for cataloging, archiving, and the like. You can also tie encoding decisions within Cambria to the XML output via scripting, for example verifying a file name before encoding. If you have a potential application for this, check with your support representative.

How Long Does OCR Take to Process?

This depends on many factors, including video duration and resolution, the amount of text in the video and its clarity, computer speed, and the length of video searched. In rough terms, figure about the same amount of time as an H.264 encode of the same video duration.

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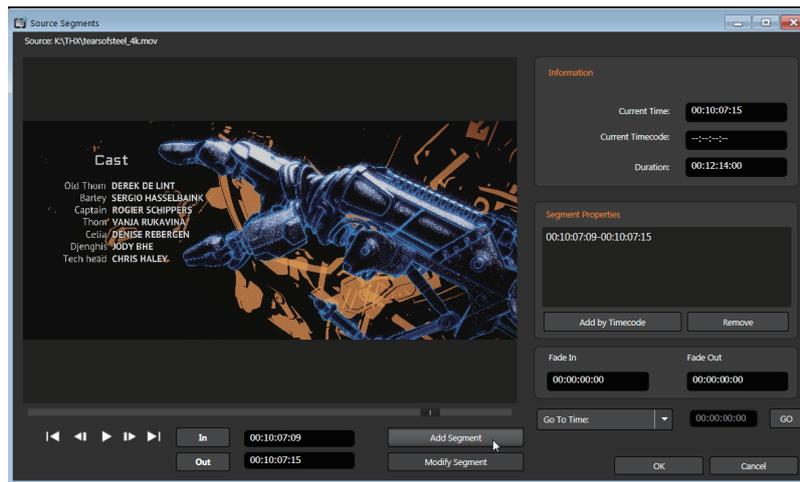
How Accurate is the Analysis?

Like all OCR programs, accuracy depends upon the clarity of the text. Static text on a black background should be very accurate. Scrolling text over a dynamic background will be less so.

What Do I Need to Install?

OCR requires access to the Data folder, which contains information used in the text analysis and recognition process. This data folder is normally included in the software installation package, but can also be downloaded from http://bit.ly/FTC_OCR.

Using Optical Character Recognition

Here's the procedure for outputting OCR.

1. Load the source file into Cambria FTC as normal. If you'd like to scan only segments of the file, which will save processing time, double click the file to open the Source Segments dialog shown above.

To choose a segment:
• Use the player controls on the bottom left to navigate to the first frame of the segment
• Click the In button
• Navigate to the last frame in the segment
• Click Add Segment.

Once you've added all the segments, click OK to close the dialog.

2. Click the Encoding tab in Cambria, then click Add to add a preset. The Preset Editor will open. You'll be modifying the preset to produce the OCR output, and can save the preset so you can use it for future OCR outputs.

3. At the top of the Preset Editor, choose the Output Folder for the XML file.

4. In the Container list box, choose Analysis (see the next page).

5. Scroll down in the preset to the OCR (Credit Text Recognition) section.

6. Click the Use OCR checkbox. This will reveal the other con guration options shown below the checkbox (and on the lower right).

7. Click Browse, and navigate to and select the Data folder referred to in the **What Do I Need to Install** section above.

8. Make sure the proper source language is selected. If not English, hover your pointer over the question mark to the right of the Language box to view the available languages and their three-letter codes.

9. The other configuration options control performance and accuracy. You should use the default settings for your first few OCR tasks unless you experience accuracy problems. Here's a brief description of each option.

• **Preprocess mode** - You can accelerate performance by simplifying the pre-processing mode. There are four options, from Contour (fastest) to Dominant Color (most accurate). For simple text on a plain background, try Contour. If your OCR results are inaccurate, try Dominant Color.

• **Pre-scaling mode** - Pre-scaling the footage to lower resolutions can improve performance, but may degrade accuracy. Options range from SD/SD, which is the fastest, to ORG/ORG, or original/original, which is the most accurate.

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- **Sampling Frame Rate** - This controls the number of frames per second analyzed from the source video. More frames analyzed means slower performance but greater accuracy. Options run from 1 frame per second (fastest) to ten (most accurate).

- **Offsets** - This accelerates processing by excluding frame regions from the analysis. Assuming no text is excluded, this has no impact on accuracy.
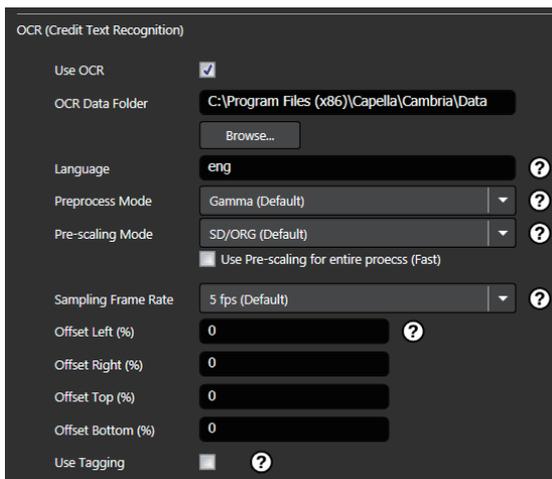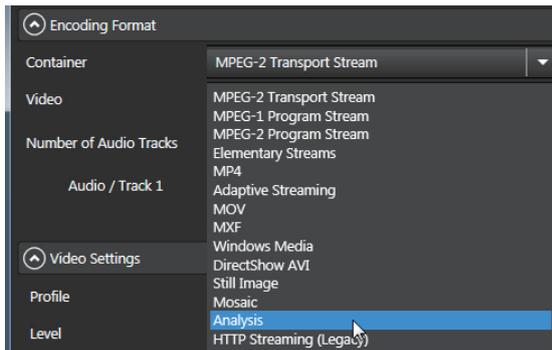
- **Use Tagging** - This opens a window that allows you to tag text included in certain areas with a name.This makes it simple to find the text in the XML file, and to programmatically use the text in a script.

10. Once you finish configuring your settings, consider naming the preset and saving it for further use (below).