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DYNAMIC ANIMATION AND VIDEO

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Transcribing Audio with Soundbooth

Soundbooth offers a very useful option that recognizes speech and translates it into text. The accuracy of this transcription can teeter-totter between being incredibly accurate to not very accurate. There are a few factors you can influence to improve the accuracy of the text:

● NOTE: Cleaning Up Audio

The clearer the audio is, the more accurate the transcription will be. If you have noise in the sound track, consider cleaning up the audio first. In Soundbooth, choose **Tasks > Clean Up Audio** from Soundbooth's menu. You can use the **Clean Up Audio** section to adjust the parameters and preview the changes until the audio sounds clean. For more information, see Soundbooth's online help.

- Use a professional-quality microphone to get a cleaner audio signal.
- Try to minimize or remove background noise.
- Isolate the voice from music or sound effects to make the transcription more accurate.
- Encourage the speaker to clearly pronounce words.

You will find that you'll generally have to do some cleanup after the automatic transcription process. Fortunately, Soundbooth makes cleanup easy.

1. Copy the **Chapter_14 Project Files** folder from the DVD to a local hard drive.
2. Launch Soundbooth, and then choose **Window > Workspace > Edit Audio to Video** to place Soundbooth in a state to work with video files.
3. Choose **Window > Metadata** to view the Metadata panel.

The Metadata panel is your starting point for speech transcription. Running the transcription function takes a while, but when it's finished, all metadata for clips will be searchable from the Metadata panel. Fortunately, the process can run in the background, which means you can still edit or perform other tasks. The Metadata panel also allows you to search by any word or phrase within the clip.

4. Choose **File > Open** and open the file **gasPrices_original.f4v** from the **Chapter_14 Project Files** folder.

You can open any standard type of video file in Soundbooth, such as QuickTime, AVI, F4V, or FLV.

5. Click **Play** to preview the file.



Become familiar with the short news story. You will optimize this clip for the Web and make it more accessible for the news channel's Web site.

Speech Transcription Options

To improve the accuracy of the transcription, Soundbooth needs additional information from you. Soundbooth can currently access seven different language libraries, and we expect this list to expand. You'll find that many languages offer subtle varieties, such as English offering localizations for Australia, Canada, the United Kingdom, and the United States.

1. Click the Transcribe button at the bottom of the Metadata panel.
2. Select the appropriate language. For this clip choose English - U.S.



3. Choose a Quality setting.

Adobe offers two quality choices for the transcription. The default choice is High (Slower), which will take longer to process the files but offers significantly better translation. The second choice, Medium (Faster), should only be used when you are very tight on time. The results are less accurate but do process more quickly.

In our tests, we used a 2.4 GHz Intel Core 2 Duo processor with 4 GB of RAM. The High method resulted in a ratio of 1.8, meaning the runtime of the clip multiplied by 1.8 equals the approximate processing time. The Medium method was nearly four times faster with a ratio of approximately .5.

Since you have some time and it's a short clip, choose the High quality method.

4. Leave the Identify Speakers option deselected since there is only one voice in this news story.

The transcription option can attempt to identify different speakers in a clip. In the Speech Transcription Options dialog, you can select Identify Speakers. This takes longer to process but will attempt to create separate transcripts for each person. This method can be inaccurate, so only use it if you have a long clip with multiple voices or want to export the transcript for others to view.

5. When you're ready to submit your clip, click OK.

Depending on the speed of your computer, Soundbooth should take about three minutes to process the clip. While that's happening, let's take a look at the road ahead.

▲ TIP: Learn Additional Languages

To download all the additional language packs, go to www.adobe.com/products/soundbooth/speechtotext.

Cleaning Up the Transcript

When the transcript is complete, you can edit it. This means you can fix any words that you know are spelled wrong as well as add punctuation. While this involves a bit of manual labor, Soundbooth will have done 60–95 percent of the work for you.

Here is the script that the reporter read:

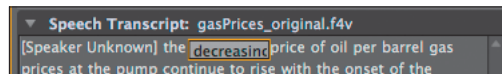
[Reporter] Despite the decreasing price of oil per barrel, gas prices at the pump continue to rise. With the onset of the economic crisis, oil companies and refineries have felt this pinch, forcing them to cut back on production. This cutback has ultimately trickled down to the consumers, causing higher prices at the pump. While commuters are grumbling about increasing gas prices, there doesn't seem to be any sign of a slowdown. Industry analysts predict prices will continue to rise for the next three months at least.

1. Compare the preceding script to the Soundbooth transcription.



Notice that Soundbooth was very accurate. Only two words were missed and one phrase was improperly transcribed. This is a very good start, but it's still not perfect. Some of the words are wrong, and there's no punctuation.

2. Double-click on the word increasing (in the first line). Change the word to decreasing.



3. Let's add the first punctuation mark. Double-click the word barrel (in the first line). Press the arrow key to move to the end of the word and type a comma to insert the natural pause.

Transcribe with Adobe Media Encoder

If you have several clips to transcribe, we recommend using the Adobe Media Encoder. This powerful tool is normally used to convert audio and video files to many different formats used for tasks like DVD authoring and Web distribution.

You can import an entire folder of media to transcribe. In the Adobe Media Encoder CS4 application, click the Add button in the main window. Then navigate and select multiple clips in a folder (hold down the Shift key to choose more than one clip). Next, specify Speech Transcription from the Format button. You must then specify options by clicking the word Custom (if you want to adjust multiple clips at once, Shift-click to select them all before clicking Custom). Select the Speech Params tab and set the Language, Quality, and Identify Speakers options using the aforementioned advice.

4. The phrase “down to the consumer is causing” has a few errors, so change the word consumer to consumers. Then, right-click the word is and choose Delete Word.
5. Continue editing the transcript, adding letters, merging or deleting words, and adding punctuation as needed. It should only take you a few minutes to clean up the text. You can reference the following text while making the fixes. The characters in red indicate a change to the transcript. You can use the Tab key from word to word in the transcript and press Return/Enter to edit:

[Reporter] Despite the decreasing price of oil per barrel, gas prices at the pump continue to rise. With the onset of the economic crisis, oil companies and refineries have felt this pinch, forcing them to cut back on production. This cut back has ultimately trickled down to the consumers, causing higher prices at the pump. While commuters are grumbling about increasing gas prices, there doesn't seem to be any sign of a slowdown. Industry analysts predict prices will continue to rise for the next three months at least.

Exporting a Transcript as XML

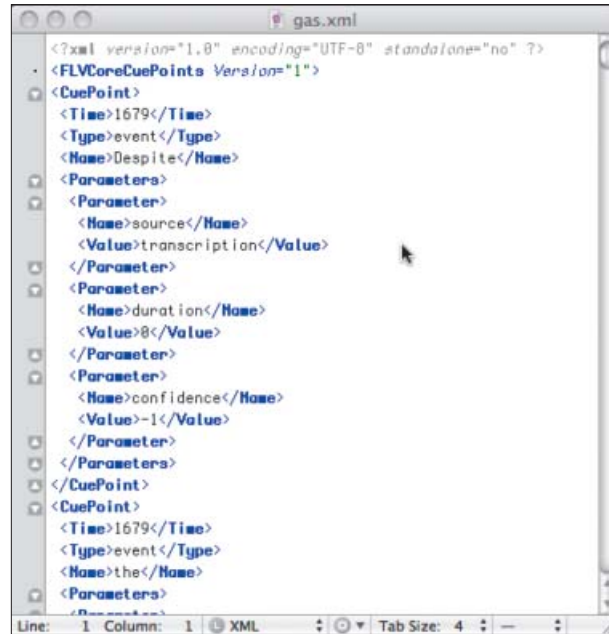
After you've cleaned up the transcription, you can export it as an XML file. As you'll see in the next section, this XML file will become useful in several ways, notably for embedding cue points and making videos searchable.

1. From Soundbooth's menu, choose File > Export > Speech Transcription.
2. Save the file as gas.xml in the Chapter_14 Project Files folder. (The save is very fast; blink and you'll miss it.)

▲ TIP: Take Your Transcripts with You

The entire transcript can be copied by selecting it all, right-clicking it, and then choosing Copy All. Additionally, you can include the transcript file in the final export if you are sending your video to the Web via Flash Video.

If you open the file in a text editor, it will look like this.



Importing XML Cue Points

You just exported the XML file out of Soundbooth, but now you'll bring it right back in. You can use the XML to create cue points (which Soundbooth calls "markers") on the video's Timeline. These cue points are critical because they allow Flash to associate the transcript with the video file for navigation.

1. Choose File > Import > Markers.
2. Navigate to the **Chaper_14 Project Files** folder and select the recently created gas.xml. Click Open.

Several markers are added to the Timeline

Here's Soundbooth's Timeline with the imported markers. These will become cue points in the rendered file.



Rendering an FLV

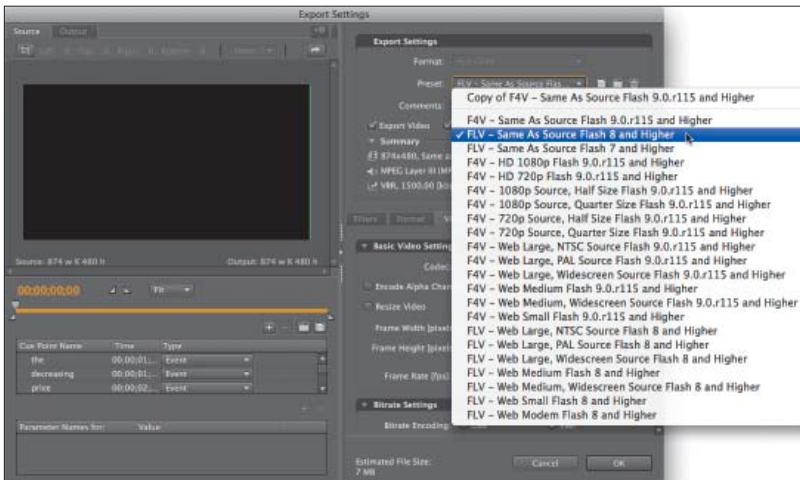
After the markers have been added, it's time to save out a file that is ready for Flash. This process is very simple.

1. Choose File > Save As.
Name the file gas. Target the **Chapter_14 Project Files** folder. Choose FLV | F4V (*.f4v) from the Format pop-up menu. Click Save.

The Export Settings window opens. You are essentially rebundling the compressed file so the markers get added into the file.



2. Choose FLV - Same As Source Flash 8 and Higher from the Preset pop-up menu.



3. Change Bitrate Encoding to VBR.



4. Click OK to render out a file. This process takes a few minutes as the file re-encodes. When the process is done, quit Soundbooth.

Now that you have an XML file and an FLV file with markers, you can create accessible video.

Making Searchable Video

● NOTE: Evolving Files

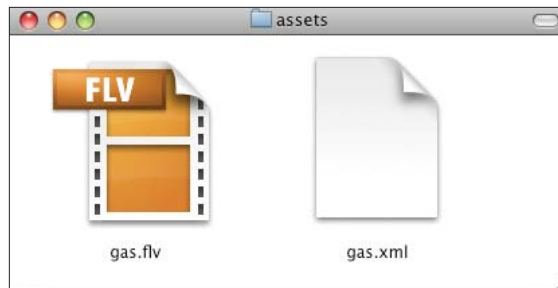
The provided HTML files are still in an evolving developmental stage. Check www.peachpit.com/AEFlashCS4 for future improvements.

We've placed an HTML (Web page) application on this book's Web site at www.peachpit.com/AEFlashCS4. This application allows you to make your video searchable as if it were a text document. You'll need to make a couple of simple edits, and then everything will be good to go.

Customizing Adobe's Searchable Video Application

Adobe has created a Web application that allows users to search through your Flash video using transcript words as search terms. All the code needed to make this work is in the VideoSearch folder. You will need to customize this code so that it points to your video and transcript files. To do so, follow the steps below.

1. Add your video and transcript file to the VideoSearch/assets folder.



For this example, place the gas.flv and gas.xml files you created earlier.

2. Open the VideoSearch/searchableVideoPrefs.xml file in a text-editing application, such as TextEdit on the Mac or Notepad on a Windows machine.
3. In the searchableVideoPrefs.xml file, you'll see a few lines of code that look like this:

```
<!--<sourceURI>assets/asset_name.flv</sourceURI> -->  
<sourceURI>assets/asset_name.flv</sourceURI>  
<!--<sourceURI>rtmp://[theserver]/[theapplication]/asset_name.  
flv</sourceURI> -->
```


Edit the text called `asset_name.flv` so that it matches the name of your media file. In this example, use `gas.flv`. You can also use an “absolute URL” to link to a video on the Web, such as:

```
<sourceURI>http://www.mySite.com/videos/myVideo.flv</sourceURI>
```

4. Next, you’ll need to specify the name of the XML file. You’ll edit the code that looks like this:

```
<!--<transcriptLocation>assets/asset_name.xml</transcriptLocation>-->  
<transcriptLocation>assets/asset_name.xml</transcriptLocation>
```

Edit the text called `asset_name.xml` so it matches the name of your media file. In this example, use `gas.xml`.

In the `searchableVideoPrefs` file, you’ll also see options for skinning the video. If you don’t like the look of the video controls, you can change the skin reference (`<flvplayerskin>skins/SkinUnderPlayStopSeekMute-Vol.swf</flvplayerskin>`) to one of the other skins included in the `VideoSearch/skins` folder. These are the same skins you see in Flash’s Video Import Wizard.

5. By default, the application will not allow searches for words of less than five characters. This excludes simple, common words such as “the” and “and”. You can modify this setting by changing the “5” in this preference:

```
<minwordLength>5</minwordLength>
```

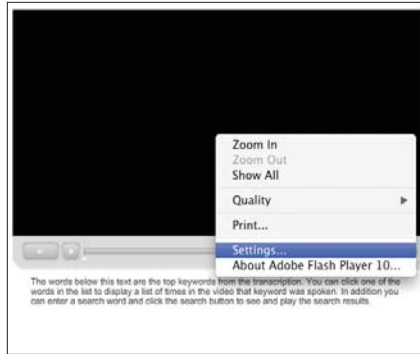
Testing the HTML

After the assets are loaded, you can simulate the searchable video. But first you’ll need to get the simulation running with a few preferences tweaks.

1. Start your Web browser.
2. Open the file `index.html` from the `VideoSearch` folder.

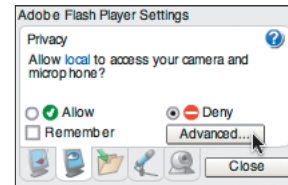
The application won’t work at first because it’s running on your hard drive, not on the Web. Flash is very leery of interactions between HTML and Flash movies that run on your desktop, since they might be made by “hackers” who are trying to damage your system. In this case, the concern is unwarranted.

3. Right-click on the video player and choose Settings.

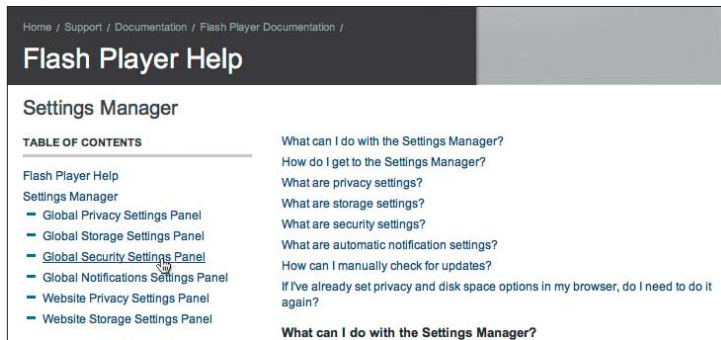


4. In the Adobe Flash Player Settings dialog, click the Advanced button.

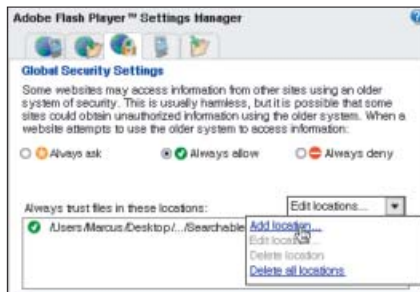
A new window opens in the Web browser that offers links to the Settings panel. Again, to protect Flash from hackers, you'll need to manually navigate to this setting.



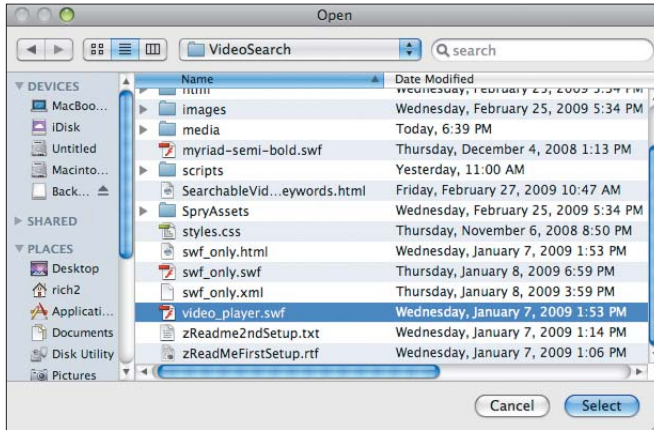
5. In the Settings Manager, click the Global Security Settings Panel hyperlink.



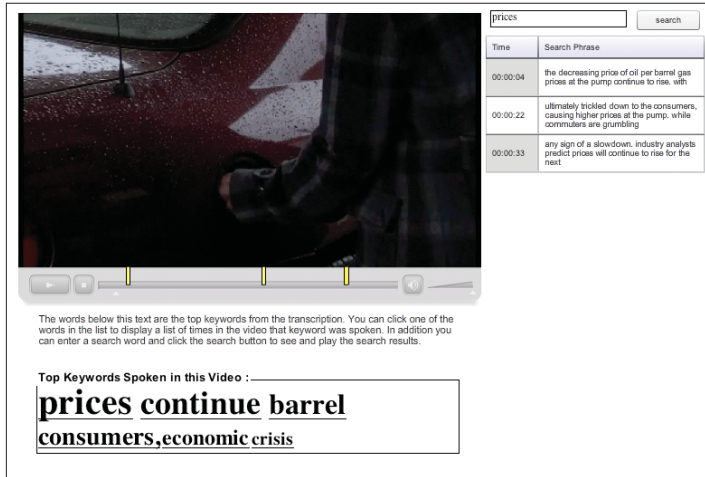
6. On the Global Security Settings tab, click the Edit Locations drop-down menu, and then choose the Add Location option.



7. Add the file **video_player.swf** (Chapter_14 Project Files > Video Search > video_player.swf).



8. Reload the **SearchableVideo+Keywords.html** Web page.
9. Try typing **gas** into the search form (a word that's in the transcript), and then click the Search button.



10. Once the video player has located cue points, click them to see the cue-point metadata.
11. Also, try clicking one of the Top Keywords to search for it in the video.

