



# Webcast Captioning & Subtitling and CaptionMaker

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## Webcast Captioning and Subtitling

Webcasting, in simple terms, means streaming video on the web. You can stream a video that is already produced, or you can stream a live video in real time.

When you caption or subtitle videos on the web (webcasting) you can reach out not only to the hearing impaired community, but also to people all over the world. You can put subtitles in virtually any language! You can take care of the language barrier and sound barrier at the same time! People from all over the world, no matter what language they speak, will be able to turn on the video and understand what is being said by choosing the subtitles in their own language.

There are two scenarios for webcasting:

- Video on Demand
- Realtime Video

When you have a video in hand, you may upload the video on the web and people can see the video whenever they wish to. This is called *Video on Demand Webcasting*. On the other hand, if you want to webcast a live event, you may stream the live video on the web and people can watch the video as the event is in progress. This is called *Realtime Video Webcasting*. Typically broadcasters use this process to broadcast programs on the web.

### Captioning Realtime Webcasts

CaptionMaker CPC-600 and 700 series are capable of captioning webcasts only for *Video on Demand*. This document will only explain webcasting for video on demand. The *Realtime Video Webcasting* is done by CPC-800 software.

### Captioning Video on Demand

If you are considering webcasting, you will need to decide which format you will use, *Windows Media Player*, *RealPlayer*, *QuickTime Player* or *Flash Player*. Each offers different benefits and only you can decide which is best for your webcast.

CaptionMaker can create files for all of these formats.

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**Subtitle Examples:** On our web site, [www.cpcweb.com](http://www.cpcweb.com), we have a few sample demos under the link Webcasting. Check it out to get a better idea of subtitling a webcast.

Inside the C:\Program Files\CPC\capmaker\Samples folder on your computer there are examples of webcast captions for all 4 players. You may take a look at these files to get some familiarity with these files.

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### Captioning or Subtitling?

Closed captioning on conventional video differs from subtitling on conventional video in several ways. The most important difference is that you can turn the captions on or off by choosing the closed caption option on the TV remote control. Closed captioning is used mostly by people who cannot hear well. Subtitling on conventional videos cannot be turned on or off. Subtitles are always on since they are part of the video. Subtitling is normally used by people who do not understand the language spoken in the video, so typically it appears in a language other than the language being spoken on the video. On conventional video media captions or subtitles appear on the bottom of the video.

Webcasting video on the web, a completely different medium, combines the concept of captioning and subtitling. The video appears in a small window on the computer screen and the text is displayed outside the area of the video. The viewer has a choice:

- Turning the text on or off (on most players)
- Switching between multiple languages (if multiple languages are present)

Throughout this document we will use both terms “captioning” and “subtitling” interchangeably in relation to webcasting.

### **Creating a Time-Stamped File**

To caption a webcast, your first task is to create a time-stamped file for the video. See Chapter 4 for details.

RealPlayer can handle both Pop-on and Roll-Up display modes. Windows Media Player, QuickTime and Flash can handle Pop-On mode only. To play safe, follow these rules for all webcast exports.

- use Pop-On display mode.
- use upper and lower case, which is easy to read.
- limit caption length to 32 characters.
- position captions at the bottom of the screen. Since the captions are below the video, there is no need to place the captions at different vertical positions as is done in captioning a videotape to avoid graphics and other relevant information on the video.
- position captions centered.
- do not use music symbol. Use [music] instead of the music symbol. The music symbol does not appear as a music symbol in most players.

### **Windows Media Player**

We recommend Windows Media Player for webcasting. It offers more options. Also everyone who uses a Windows computer will automatically have Windows Media Player, meaning that your viewers will not have to download new software to watch your video. There are four ways you can caption formats for Windows Media Player

- Embedded Text (browser independent)
- ASX format (browser independent)
- HTML Normal format (works with Internet Explorer only)
- HTML Book Format (works with Internet Explorer only)

### **Windows Media Player – Embedded Text**

In this method, the caption text is inserted inside the video file, there are no additional files for captioning. When you play the video in WPM, captions are extracted by WMP and are shown below the video.

### **Windows Media Player - ASX Format**

You can also export a .smi file and a .asx file. The .smi file contains the text and timecode information. The .asx file is a short file, which pulls in the video and .smi file together to play within Windows Media Player. It does not matter which internet browser you use. It is browser independent.

Two files .asx and .smi are created. Make a link to the .asx file to see the Webcast with captions. To test the files, place all files (.asx, .smi and .wmv) in one folder and double-click on the .asx file. The video will play and display the captions.

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**No Need for ASX File !!!** If the file names for the WM video file and the .smi file without the extensions are exactly the same, you really would not need the .asx file. When you

click on the .wmv file, WMP will see the .smi file with the same name and will pull the captions from the smi file.

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### **Windows Media Player – Html Format**

You can export captions for Media Player in HTML file format, which works with Internet Explorer only. Internet Explorer launches Windows Media Player and plays the video with captions.

Two files .html and .smi are created. Make a link to the .html file to see the Webcast with captions. To test the files, place all files (.html, .smi and .wmv) in one folder and double-click on the .html file. The video will play and display the captions.

### **Windows Media Player – Html Book Format**

In the Book format, a box is added next to the video with the full text. As the words are said, they are highlighted in the text box. This format works with Internet Explorer only. There is one advantage to this style. You may highlight the text with a mouse and copy and save the text on your hard drive.

Three files .html, .dat and .smi are created. Make a link to the .html file to see the Webcast with captions. To test the files, place all files (.html, .dat, .smi and .wmv) in one folder and double-click on the .html file. The video will play and display the captions.

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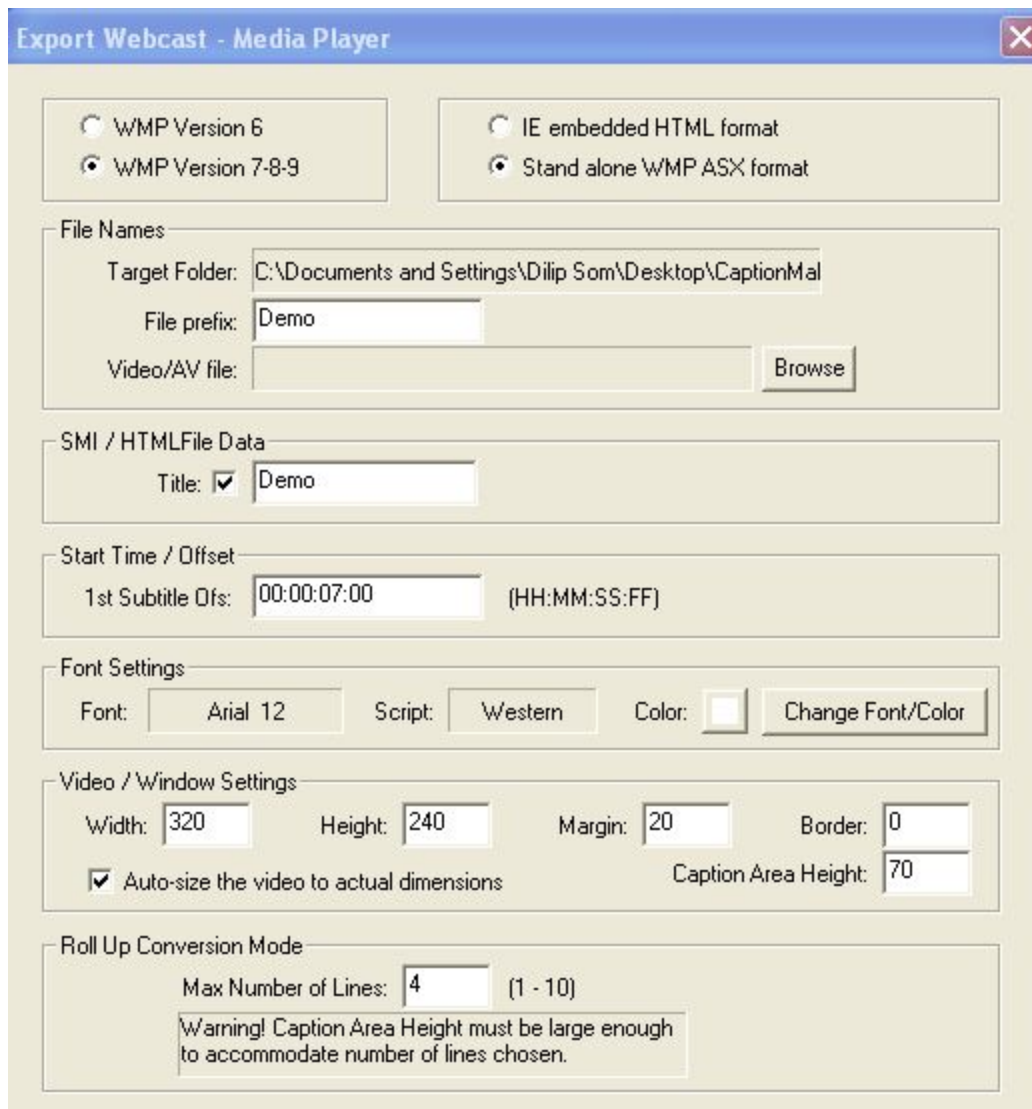
**WMP Caption On/Off Switch** To see captions on Windows Media Player, make sure to turn the captions on. For different versions of WMP, the steps to turn caption on are different. For details, check the link: [www.cpcweb.com/wlive/WMPSwitches.html](http://www.cpcweb.com/wlive/WMPSwitches.html)

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To export files for Windows Media Player, go to *File* → *Export* → *Webcast- Media Player* option.. You will see all the choices in the export window.

The export window is self-explanatory. Here are a few notes:

- Do not use version 6 unless you know the viewer is going to use this old version WMP.
- Version 7,8,9 also works for version 10 of WMP.
- Make sure to jot down the time code of the first caption.
- Choose size 12 Arial Bold font for clarity.
- Check the box “Auto Size” unless you know the exact size of the video, like 320x240



After exporting the file(s), upload the file(s) created by CaptionMaker and the video in the same folder on the web, and make a link to the appropriate file.

#### **Additional Notes on Windows Media Player**

- Captions do not move left and right
- When working with the HTML exports, you have to open it in Internet Explorer. Firefox will not open it correctly. Also, most Internet Explorer pop-up blockers will block Active Content. When the bar pops up that says Internet Explorer has blocked content, you have to click on the bar and Allow Blocked Content
- It's also important to remember to set your Caption Area Height large enough to accommodate multiple line captions. When working with the HTML file, users have the option of viewing small or large text, so that has to be taken into account.

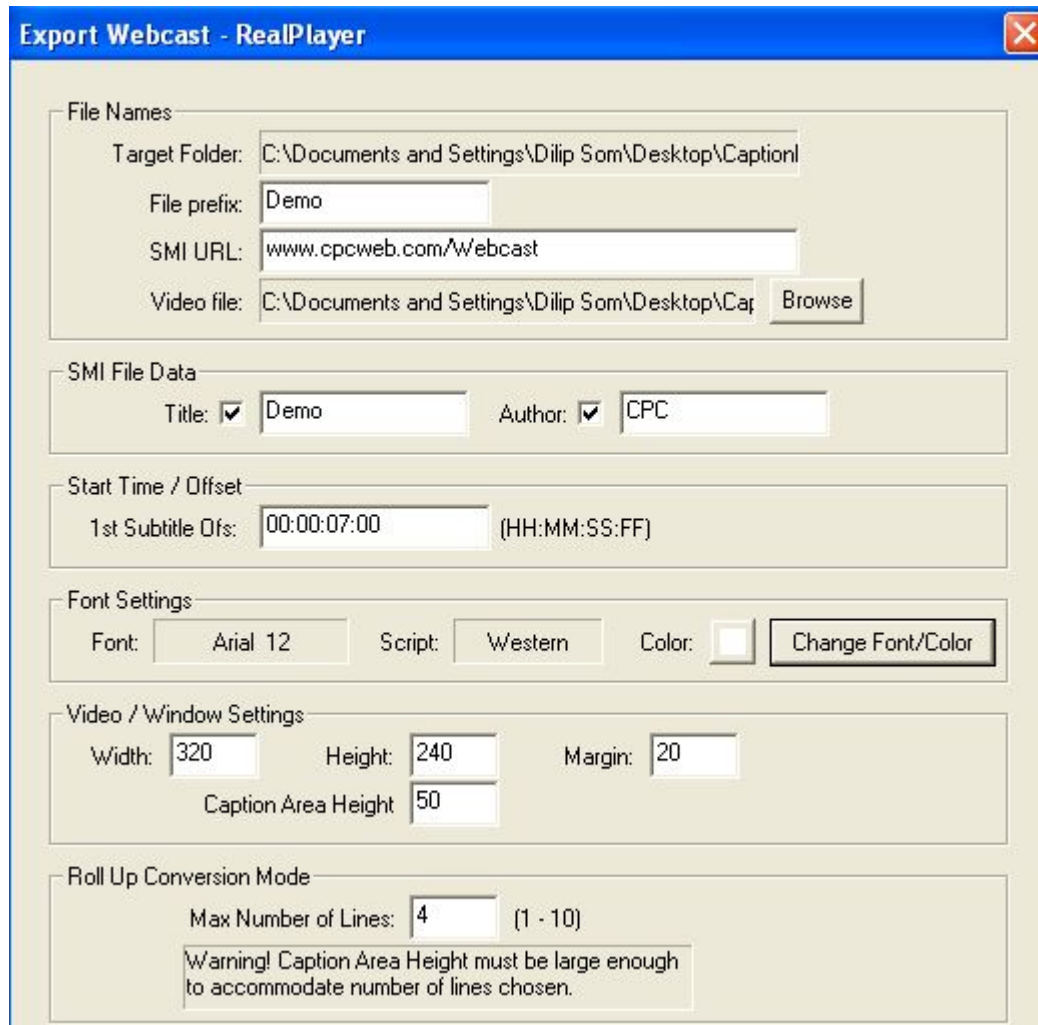
#### **RealPlayer**

RealPlayer is probably the easiest way to webcast, but some people may not have RealPlayer on their computer. The subtitles cannot be turned off from the RealPlayer options. The only way you can turn the subtitles off is to create a button on the web that plays the video without the subtitle files. Perhaps one day RealPlayer will have an option to turn the subtitles off or on as Windows Media Player does.

To export files for RealPlayer, go to *File* → *Export* → *Webcast SMI/RT (\*.zip)* option to export the file. The *Export Webcast* dialog box opens up.

The export window is self-explanatory. Here are a few notes:

- Make sure to jot down the time code of the first caption.
- Choose size 12 Arial Bold font for clarity.
- You can do rollup captioning with maximum of 10 lines of text in the text window. Make sure to adjust caption text height appropriately.



After you export the file for RealPlayer, unzip the file and you will find three files. (If you use both Pop-On and Roll-Up modes, you will have more than three files.)

- video.rt
- video.smi
- videoweb.rm

The *.smi* file contains the name of the video file you assigned in the export process. Let's say the name of the file is *video.rm*

The *videoweb.rm* file contains one line of text as below:

<http://www.cpcweb.com/RealPlayer/Video.smi>

This link (in this example) represents the following:

- *http://www.cpcweb.com* is the web site where you would like to host this Webcast.
- *RealPlayer* is the folder where you put all four files.
- *video.smi* is the name of the .smi file described above.

Now take these three files along with the RealPlayer video file *video.rm* and upload all four to your website folder *RealPlayer* and make a link to the file *VideoWeb.rm* and you are finished. When a web surfer clicks on this link, he will see the video with the subtitles. If you also would like to make a link just to see the video without the subtitles, simply make another link to the file *video.rm*

#### **Additional Notes on RealPlayer**

- Words move left and right, size and font can be changed in export options, size of the text track itself is customizable in export options. Do not use music symbol, use the word [music].
- Set the margins accordingly when doing right positioned captions. If you don't leave enough space in the margin for a right positioned caption, the words that don't fit will be moved to the very left of the screen on the next line. Setting margins to 0 works best, but you can get away with higher numbers depending on how your text is formatted.
- Ignore the format for Roll-Up you used when creating the initial .cap file. Upon export you will be asked to set the maximum number of lines for Roll-up mode. If you enter 1, roll-up captions will appear one at a time, if you choose 5, then 5 roll-up captions will appear at once. The only thing to remember is that you follow the warning and set your Caption Area Height accordingly to the font you've selected and the max number of lines you've set.

#### **QuickTime**

QuickTime is definitely the most difficult of the three programs for subtitling webcasts. Like RealPlayer, subtitles shown with QuickTime cannot be turned off or on. There are two ways you subtitle a QuickTime movie.

- smi and text file format
- Embedded text

To export files for QuickTime, go to *File* → *Export* → *QuickTime Webcast Script (\*.txt)* option. You will get two files, one with extension .txt and the other with extension .smi

#### **SMI and text file format**

If you have the .smi, .txt and the video file .mov all in the same folder, open the .smi file in QuickTime and you will see the video with the captions. It is that simple. On the other hand if you want to embed the text inside the video, follow the steps below.

#### **Embedded Text**

1. Open QuickTime Player.
2. Choose *Open movie in new player* and select the movie that you would like to subtitle.

3. Go to *File* → *Import* and choose the text file that has just been exported from CaptionMaker. (You may have to change the Type field from *Movies* to *All*).
4. A new dialog box will open: *Save converted file as*. Click on Options in the bottom left corner. Here you can choose your font, font size, text style, screen width and height. You can also choose to do *Keyed Text*, which means that the text shows up right over the movie, not on a black background. Since this is just the text portion of the movie, you don't want to make the height any bigger than 2-3 lines of text will require. Match the width with the width of the movie, and make the height just big enough for 2 lines of text (100-200 depending on your font size). You may have to try this a few times to get the right size.
5. When you click on OK, a new movie will be created that contains only text. To go into this movie, go to *Edit* → *Select All*, then *Edit* → *Copy*. Now go into the movie that you would like to subtitle, and go to *Edit* → *Add*. You will see a black box at the top of the screen where the text should be. If you are using keyed text you will not see a black box; you may need to move forward a few seconds into the movie to see the text. But you probably don't want a big box on the top of your movie, so you need to move it.
6. Go to *Movie* → *Get Movie Properties*. A new dialog box will open. First, select the top left drop-down menu and change it from *Movie* to *Text Track*. Now change the top right drop-down menu from *Annotations* to *Size*. When you click on *Size*, a new interface will open under the drop-down menus. Click on *Adjust*.



7. A screen like the one above will open up. Click anywhere in the black area and drag it down so it is just out of the picture, so it looks like this:



8. Now click on Done in the *Movie Properties* dialog box, save the file, and you are ready to upload the new .mov file to the web.

### **Additional Notes on QuickTime**

- If you make a stand-alone QuickTime movie with captions in Windows, you can enlarge the size of the video and the size and font of the text will actually change and get bigger to.

### **Flash Player**

#### **You will need these 4 things to do this:**

- CaptionMaker
- Captionate (This is the program that will allow you to embed captions inside your .flv files. You can find it here: <http://www.buraks.com/captionate/6.html> )
- Macromedia Flash Professional 8 or higher (This is the program that will allow you to build the .swf and/or .html files using your .flv video. You can find it here: <http://www.adobe.com/products/flash/> )
- Skins for FLVPlayback that support Captionate  
You can download them from the following link:  
<http://blogs.adobe.com/accessibility/assets/CaptionedFLVSkins.mxp>  
Just double click the .mxp to install after you download

#### **Creating an .flv using Macromedia Flash 8 Video Encoder**

- If you purchased Flash Professional 8, it should come with Macromedia Flash 8 Video Encoder
- You can use that to encode almost any type of video into an .flv file
- Open Flash 8 Video Encoder, click Add, and choose your video
- You can add as many videos as you want and the Video Encoder will convert all of them into .flv videos
- If you don't have any specific video settings you want to set, just use the default Medium Quality (400kbps)
- After you have all your videos added in, just click Start Queue

#### **Creating an .xml using CaptionMaker**

- CaptionMaker cannot play .flv videos so use your original video to time, position, and format all your captions inside CaptionMaker
- When you are finished, go to *File >> Export DVD/DV2000/Webcast Subtitle* and choose Webcast - Flash XML for Captionate from the pull down menu

#### **Combining the .xml with the .flv**

- Run Captionate and go to *File >> Open* and choose to open the .flv video you converted earlier
- Go to *File >> Import >> Captionate XML* and choose the .xml file you just exported from CaptionMaker
- After it imports all your captions in go to *File >> Save*
- Now all of your captions are saved inside your .flv video

#### **Creating a .swf and an .html file using Macromedia Flash**

- Run Macromedia Flash and choose to start a new *Flash Document*
- Make sure to save this project in the same folder as your .flv video
- From the *Components, & Actions, & Properties & Parameters* panel, go to the *Components* tab
- Expand FLV Playback – Player 8 and drag the FLVPlayback component from the tab into your work area
- Now that you have a component to work with, go over to the *Parameters* tab and under *Content Path* put the full filename of your .flv (ex: MyVideo.flv). You should not include the entire path to where your .flv is located. Just put the name of the actual .flv
- Then under *Skin* choose any skin that begins with the word Captioned

- After that you can go to *Control >> Test Movie* to see a sample of what your video will look like.
- Press the CC button to turn your captions on or off
- Once you are ready to create the final files go to *File >> Publish Settings* to confirm the names and types of files you want to export
- Then go to *File >> Publish* to actually create them

### **Playing your finished captioned flash videos**

- Make sure all 4 of the following files are in the same folder:
  1. The .flv video
  2. The .swf file for your video
  3. The .html file (for those who exported .html)
  4. The .swf file you chose as your skin
- Then just double click the .swf file to bring up a player in flash, or double click the .html to bring up the flash player inside your web browser (IE Explorer, Firefox, Safari, etc)

### **Note**

- It is extremely important to remember that when you are building your project in Macromedia Flash that you do not include the entire path to your .flv in the *Content Path* section of the *Parameters* tab. Doing so will make the video work perfectly fine on your computer, but it will not work for anyone else.