



CaptionMaker 8.6.1 and MacCaption 8.1.0

Quick Start Guide

Copyrights and Trademark Notices

Copyright © 2022 Telestream, LLC and its Affiliates. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, altered, or translated into any languages without written permission of Telestream, LLC. Information and specifications in this document are subject to change without notice and do not represent a commitment on the part of Telestream. Specifications subject to change without notice.

Telestream, CaptionMaker, Cerify, DIVA, Episode, Flip4Mac, FlipFactory, Flip Player, GraphicsFactory, Kumulate, Lightspeed, MetaFlip, Post Producer, ScreenFlow, Switch, Tempo, TrafficManager, Vantage, VOD Producer, and Wirecast are registered trademarks and Aurora, ContentAgent, Cricket, e-Captioning, Inspector, iQ, iVMS, iVMS ASM, MacCaption, Pipeline, Sentry, Surveyor, Vantage Cloud Port, CaptureVU, FlexVU, PRISM, Sentry, Stay Genlock, Aurora, and Vidchecker are trademarks of Telestream, LLC and its Affiliates. All other trademarks are the property of their respective owners.

Adobe. Adobe® HTTP Dynamic Streaming Copyright © 2014 Adobe Systems. All rights reserved.

Apple. QuickTime, MacOS X, and Safari are trademarks of Apple, Inc. Bonjour, the Bonjour logo, and the Bonjour symbol are trademarks of Apple, Inc.

Avid. Portions of this product Copyright 2012 Avid Technology, Inc.

CoreOS. Developers of ETCD.

Dolby. Dolby and the double-D symbol are registered trademarks of Dolby Laboratories Licensing Corporation.

Fraunhofer IIS and Thomson Multimedia. MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson Multimedia.

Google. VP6 and VP8 Copyright Google Inc. 2014 All rights reserved.

MainConcept. MainConcept is a registered trademark of MainConcept LLC and MainConcept AG. Copyright 2004 MainConcept Multimedia Technologies.

Manzanita. Manzanita is a registered trademark of Manzanita Systems, Inc.

MCW. HEVC Decoding software licensed from MCW.

MedialInfo. Copyright © 2002-2013 MediaArea.net SARL. All rights reserved.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR

OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Microsoft. Microsoft, Windows NT|2000|XP|XP Professional|Server 2003|Server 2008|Server 2012|Server 2016|Server 2019, Windows 7, Windows 8, Windows 10, Media Player, Media Encoder, .Net, Internet Explorer, SQL Server 2005|2008|2012|2016|2019, and Windows Media Technologies are trademarks of Microsoft Corporation.

NLOG, MIT, Apache, Google. NLog open source code used in this product under MIT License and Apache License is copyright © 2014-2016 by Google, Inc., © 2016 by Stabzs, © 2015 by Hiro, Sjoerd Tieleman, © 2016 by Denis Pushkarev, © 2015 by Dash Industry Forum. All rights reserved.

SharpSSH2. SharpSSH2 Copyright (c) 2008, Ryan Faircloth. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer:

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of Diversified Sales and Service, Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Swagger. Licensed from SmartBear.

Telerik. RadControls for ASP.NET AJAX copyright Telerik All rights reserved.

VoiceAge. This product is manufactured by Telestream under license from VoiceAge Corporation.

x264 LLC. The product is manufactured by Telestream under license from x264 LLC.

Xceed. The Software is Copyright ©1994-2012 Xceed Software Inc., all rights reserved.

ZLIB. Copyright (C) 1995-2013 Jean-loup Gailly and Mark Adler.



Authorized Developer
Avid DNxHD



SCREEN
SYSTEMS



Other brands, product names, and company names are trademarks of their respective holders, and are used for identification purpose only.

MPEG Disclaimers

MPEGLA MPEG2 Patent

ANY USE OF THIS PRODUCT IN ANY MANNER OTHER THAN PERSONAL USE THAT COMPLIES WITH THE MPEG-2 STANDARD FOR ENCODING VIDEO INFORMATION FOR PACKAGED MEDIA IS EXPRESSLY PROHIBITED WITHOUT A LICENSE UNDER APPLICABLE PATENTS IN THE MPEG-2 PATENT PORTFOLIO, WHICH LICENSE IS AVAILABLE FROM MPEG LA, LLC, 4600 S. Ulster Street, Suite 400, Denver, Colorado 80237 U.S.A.

MPEGLA MPEG4 VISUAL

THIS PRODUCT IS LICENSED UNDER THE MPEG-4 VISUAL PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER FOR (i) ENCODING VIDEO IN COMPLIANCE WITH THE MPEG-4 VISUAL STANDARD ("MPEG-4 VIDEO") AND/OR (ii) DECODING MPEG-4 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION INCLUDING THAT RELATING TO PROMOTIONAL, INTERNAL AND COMMERCIAL USES AND LICENSING MAY BE OBTAINED FROM MPEG LA, LLC. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpegla.com).

MPEGLA AVC

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL USE OF A CONSUMER OR OTHER USES IN WHICH IT DOES NOT RECEIVE REMUNERATION TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpegla.com).

MPEG4 SYSTEMS

THIS PRODUCT IS LICENSED UNDER THE MPEG-4 SYSTEMS PATENT PORTFOLIO LICENSE FOR ENCODING IN COMPLIANCE WITH THE MPEG-4 SYSTEMS STANDARD, EXCEPT THAT AN ADDITIONAL LICENSE AND PAYMENT OF ROYALTIES ARE NECESSARY FOR ENCODING IN CONNECTION WITH (i) DATA STORED OR REPLICATED IN PHYSICAL MEDIA WHICH IS PAID FOR ON A TITLE BY TITLE BASIS AND/OR (ii) DATA WHICH IS PAID FOR ON A TITLE BY TITLE BASIS AND IS TRANSMITTED TO AN END USER FOR PERMANENT STORAGE AND/OR USE. SUCH ADDITIONAL LICENSE MAY BE OBTAINED FROM MPEG LA, LLC. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpegla.com) FOR ADDITIONAL DETAILS.

Limited Warranty and Disclaimers

Telestream, LLC (the Company) warrants to the original registered end user that the product will perform as stated below for a period of one (1) year from the date of shipment from factory:

Hardware and Media—The Product hardware components, if any, including equipment supplied but not manufactured by the Company but NOT including any third party equipment that has been substituted by the Distributor for such equipment (the “Hardware”), will be free from defects in materials and workmanship under normal operating conditions and use.

Warranty Remedies

Your sole remedies under this limited warranty are as follows:

Hardware and Media—The Company will either repair or replace (at its option) any defective Hardware component or part, or Software Media, with new or like new Hardware components or Software Media. Components may not be necessarily the same, but will be of equivalent operation and quality.

Software Updates

Except as may be provided in a separate agreement between Telestream and You, if any, Telestream is under no obligation to maintain or support the Software and Telestream has no obligation to furnish you with any further assistance, technical support, documentation, software, update, upgrades, or information of any nature or kind.

Restrictions and Conditions of Limited Warranty

This Limited Warranty will be void and of no force and effect if (i) Product Hardware or Software Media, or any part thereof, is damaged due to abuse, misuse, alteration, neglect, or shipping, or as a result of service or modification by a party other than the Company, or (ii) Software is modified without the written consent of the Company.

Limitations of Warranties

THE EXPRESS WARRANTIES SET FORTH IN THIS AGREEMENT ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No oral or written information or advice given by the Company, its distributors, dealers or agents, shall increase the scope of this Limited Warranty or create any new warranties.

Geographical Limitation of Warranty—This limited warranty is valid only within the country in which the Product is purchased/licensed.

Limitations on Remedies—YOUR EXCLUSIVE REMEDIES, AND THE ENTIRE LIABILITY OF TELESTREAM, LLC WITH RESPECT TO THE PRODUCT, SHALL BE AS STATED IN THIS LIMITED WARRANTY. Your sole and exclusive remedy for any and all breaches of any Limited Warranty by the Company shall be the recovery of reasonable damages which, in the aggregate, shall not exceed the total amount of the combined license fee and purchase price paid by you for the Product.

Damages

TELESTREAM, LLC SHALL NOT BE LIABLE TO YOU FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF YOUR USE OR INABILITY TO USE THE PRODUCT, OR THE BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, EVEN IF THE COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF THOSE DAMAGES, OR ANY REMEDY PROVIDED FAILS OF ITS ESSENTIAL PURPOSE.

Further information regarding this limited warranty may be obtained by writing:
Telestream, LLC
848 Gold Flat Road
Nevada City, CA 95959 USA

You can call Telestream during U. S. business hours via telephone at (530) 470-1300.

Regulatory Compliance

Electromagnetic Emissions: FCC Class A, EN 55022 Class A, EN 61000-3-2/-3-3, CISPR 22 Class A

Electromagnetic Immunity: EN 55024/CISPR 24, (EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11)

Safety: CSA/EN/IEC/UL 60950-1 Compliant, UL or CSA Listed (USA and Canada), CE Marking (Europe)

California Best Management Practices Regulations for Perchlorate Materials:
This Perchlorate warning applies only to products containing CR (Manganese Dioxide) Lithium coin cells. Perchlorate Material-special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate.

Contents

Introduction 12

- Topics 12
- Introducing CaptionMaker and MacCaption 13
- Video Tutorials and Support 13
- Comparing Software Versions 13
- Prerequisites for Captioning 15
 - Transcribing a Video 15
 - Importing a Text File 15
 - Using a Video File 15
- Automatic Time Stamp (ATS) 16
 - Requirements for ATS 16
 - ATS Results 16
 - Best Practices for ATS 16
- Caption Style Guidelines 17
- Captions vs. Subtitles 18
 - Captions 18
 - Subtitles 18

Installation 20

- Topics 20
- Installing CaptionMaker 21
 - Buying and Activating CaptionMaker 22
 - Activating CaptionMaker Offline 24
 - Upgrading CaptionMaker 25
 - Activating a CaptionMaker Upgrade 26
 - Deactivating a CaptionMaker License 28
 - Deactivating an Offline Activated License 28
- Installing and Activating MacCaption 29
 - Buying and Activating MacCaption 30
 - Activating MacCaption Offline 32
 - Upgrading MacCaption 35
 - Activating a MacCaption Upgrade 36
 - Deactivating Your MacCaption License 37

Quick Start 38

Topics 38

CaptionMaker Basics 39

Transcribing a Movie 39

How to Transcribe a Movie 40

Using Transcription Edit Mode 42

Importing Text Files 43

Opening a Movie in CaptionMaker 45

Formatting Text 47

Row Operations 48

Synchronizing Captions (Time Stamping) 48

Manual Time Stamping 48

Checking the Timing 49

Preview Play 49

Caption and Video Playback Controls in CaptionMaker 50

MacCaption Basics 51

Transcribing a Movie File 51

How to Transcribe a Movie 51

Using Transcription Mode 53

Importing Text Files 54

Opening a Movie in MacCaption 55

Formatting Text 56

Row Operations 57

Synchronizing Captions (Time Stamping) 58

Manual Time Stamping 58

Checking the Timing 58

Preview Play 58

Caption and Video Playback Controls in MacCaption 59

J-K-L Playback Control 60

Exporting Your Finished Project 61

Exporting Standalone Caption Files 61

Embedding Captions into Video 61

File-based Delivery for Broadcast TV 62

Get the TV Station Spec Sheet 62

Get a Sample Captioned Video File 62

Use Switch to Perform a Test 62

Overview of TV Formats 63

Next Steps for Delivery to the TV Station 63

Tape Delivery for Broadcast TV 64

Adobe Premiere 64

Avid Media Composer 64

Final Cut Pro 64

Other 64

Subtitle Files 65

Captioning for the Web and Mobile Devices 66

Post-Production (VOD) Web Captioning 66

DVD/Blu-ray 67

DVD Closed Captioning	67
DVD/Blu-ray Subtitle Formats	67
Subtitling	67
Exporting Subtitles	68
Playing or Converting Captioned Video Files	69

Introduction

MacCaption and CaptionMaker enable you to author, edit, encode, and re-purpose video captions and subtitles. You can use these captions and subtitles on projects made for television, web, or mobile delivery.

Topics

- [Introducing CaptionMaker and MacCaption 13](#)
- [Comparing Software Versions 13](#)
- [Prerequisites for Captioning 15](#)
- [Automatic Time Stamp \(ATS\) 16](#)
- [Caption Style Guidelines 17](#)
- [Captions vs. Subtitles 18](#)

Introducing CaptionMaker and MacCaption

MacCaption (for Mac) and CaptionMaker (for Windows) also simplify the process of complying with government regulations.

This Quick Start Guide will help you install and learn the basics of CaptionMaker and MacCaption. The following topics are included:

- **Introduction**—the chapter you’re reading now, introduces key concepts
- **Installation**—provides step-by-step installation procedures
- **Quick Start**—introduces how to use the products

This guide includes links to additional helpful information on our Website: telestream.net. Check the website periodically for updates of this document.

For complete instructions on using CaptionMaker see the CaptionMaker User Guide. This is available from Help > User Guide (Local), and from the Telestream web site.

When you purchase CaptionMaker or MacCaption, you will receive a software license key. You can easily download and install the license key by clicking on our downloads page at telestream.net and following the instructions.

Note: As of version 6.3, CaptionMaker and MacCaption support only Desktop, Pro, and Enterprise licenses issued by Telestream. If you purchased CaptionMaker or MacCaption prior to October 2013, upgrade to a Telestream Desktop, Pro, or Enterprise license before upgrading to the current software version. Please contact Telestream for more information.

Caution: Do not lose your license key because your software will not work without it, and you will be charged to replace it.

Video Tutorials and Support

Telestream offers video tutorials and support:

- Video tutorials: <http://www.telestream.net/captioning/resources.htm>
- Telestream Tech Support: <http://www.telestream.net/telestream-support/captioning/support.htm>

Comparing Software Versions

The CaptionMaker and MacCaption applications are available in 3 levels: Desktop, Pro, and Enterprise

Please refer to the following chart for the features of each level. You can purchase a software upgrade from one level to another to add capabilities.

	Desktop	Pro	Enterprise
Target uses	Caption and subtitling authoring and editing	Authoring, editing, QC, asset management, TV broadcast exports	Automation & high volume caption and subtitle asset delivery
Target customers	Corporate, independent, academic, government, houses of worship	Caption service providers, TV networks, Post facilities	Major networks, content providers, asset management & distribution services
Authoring/Exports			
Auto-transcription with Telestream Cloud Account Subscription in over 100 languages.	√	√	√
Caption Authoring, Timing and Formatting	√	√	√
Timed Text Speech Cloud Based Auto-Transcription	√	√	√
Auto Time Stamp (sync text and audio)	√	√	√
Export SCC (CEA-608) & MCC (CEA-708) files	√	√	√
Streaming/Mobile Video (SMPTE 2052 timed text--TTML and DFXP, Vimeo, Safari, Android, IMSC 1.0, IMSC 1.1 ¹ , WebVTT, SRT, iOS, YouTube, WMV, SAMI, etc.)	√	√	√
Burn-in Subtitles and Basic DVD Subtitles	√	√	√
iTunes iTT subtitle creation, edit, and export ²	√	√	√
Drop shadow option for subtitling workflows ²	√	√	√
Japanese Ruby Annotation formatting support ²	√	√	√
Subtitle overlay (movie w/alpha channel subtitle graphics)	√	√	√
Advanced DVD/Blu-ray subtitles		√	√
TV broadcast and VOD media (ProRes, MPEG-2, H.264, MXF, Avid AAF ¹ , tape, etc.)		√	√
OP-47/OP-42 Teletext for MXF Workflows ¹		√	√
Export caption interchange files (CAP ¹ , TDS ¹ , ULT, EBU-STL, etc.)		√	√
V-chip/XDS/AFD Encoding		√	√
Live captioning ¹ (via hardware encoder or web stream e.g. YouTube)		√	√
Caption Asset Management (Imports/Conversions)			
Import plain text, SCC & MCC, web formats	√	√	√
Import interchange files (Cheetah CAP, TDS ¹ , ULT, PAC, EBU-STL, etc.)		√	√
Extract CC from video files (MOV, MXF, MPEG-2, etc.)		√	√
Reformat Pop-on <-> Roll-up		√	√
Import Nexidia QC .XML Report ¹		√	√
Automation			
Assemble Captions ² (conform to EDL)		√	√
Batch processing (GUI) ¹			√
Scripting & External Control (CLI)			√

¹Currently available for CaptionMaker only

²Currently available for MacCaption only

Prerequisites for Captioning

The two ingredients you need to start captioning a video are: (1) a video file, and (2) a transcript of the dialogue in the video.

Transcribing a Video

The Timed Text Speech feature can create a text transcript of a video and populate it directly into the captioning project with the correct timing. The transcription editing mode can be used to facilitate easy editing of that timed text, or of any timed text that you have loaded into the project.

Timed Text Speech currently works with English, French, Brazilian Portuguese, and Spanish language video content.

For a basic description of the transcription process see [Transcribing a Movie](#) for CaptionMaker and [Transcribing a Movie File](#) for MacCaption.

For more detailed information see the *Timed Text Speech* chapter in the CaptionMaker and MacCaption User Guides.

Importing a Text File

MacCaption and CaptionMaker can import scripts from a text file and most word processors, such as Word files. However, because of special formatting and characters used in some kinds of document files, it is usually best to start with a plain text (.txt) file.

Using a Video File

The other ingredient you need for producing captions is a video file. Make sure you are using a digital video file, not videotape, as your video source. MacCaption and CaptionMaker can play back most types of QuickTime files (Mac/Windows), and also Windows Media files (Windows). If you have another file format, please see the MacCaption or CaptionMaker User Guide about making a proxy movie for use with the captioning software.

Automatic Time Stamp (ATS)

In most other captioning software, even after you import the transcript and video, you must go through a time consuming process to manually synchronize each piece of text so that it appears at the correct time in the video.

Auto Time Stamp automatically synchronizes the text transcript with your audio or video file, dramatically reducing the time it takes to caption a video. This feature works very well for videos with high quality audio and containing mostly dialogue. It does not work as well if the audio has already been mixed with music or sound effects, so it is preferable to use a dialogue-only audio mix.

Requirements for ATS

- A video with a clear high quality audio dialogue track, in the English language, with very little background noise or other interfering sounds.
- An accurate transcript of all the dialogue in the video.
- See our System Requirements Web page for minimum computer specs:
<http://www.telestream.net/captioning/tech-specs.htm>

ATS Results

When you run an Automatic Time Stamp operation, the following occurs:

- Automatically synchronizes each caption; no need to manually time stamp captions.
- The process is much faster than real-time (15 times to 30 times faster, depending on the speed of your computer).
- The software automatically detects captions with poor synchronization and highlights them in red, so you can spot check and manually correct these captions.

Best Practices for ATS

The following are important points to consider for getting the best results from an Automatic Time Stamp operation:

- An accurate transcript is vital. To get good results, the transcript cannot deviate significantly from the audio.
- High quality audio is also the key. Compression, sound effects or music can distort the dialogue.
- Speaker IDs that are indicated with ">> Name:" are treated as unspoken text.
- Non-verbal information in the transcript, such as music or sound effect indications, should be enclosed by brackets such as this: [MUSIC], or [Applause].
- If the software highlights some caption lines as low confidence, you might want to do a quick Preview Play to spot check these sections. In many cases the low confidence sections may be fine or close enough for your needs. If not, you can do a manual time stamp just on these few sections to improve the alignment.
- Auto Time Stamp supports English language audio only.

Caption Style Guidelines

Adhering to good caption style is very important. The following is an excerpt from the Described and Captioned Media Program (DCMP), web site, <http://www.dcmp.org/>:

Captioning is the key to opening up a world of information for persons with hearing loss or literacy needs. There are more than 30 million Americans with some type of hearing loss. Millions of others are illiterate, learning to read, or use English as a second language.

The first captioning of any kind was performed in the late 1950's by Captioned Films for the Deaf, the ancestor of DCMP, two decades before the advent of closed captioning on broadcast television. The first edition of the Captioning Key was published in 1994, and these guidelines were based on decades of experience by DCMP (then called Captioned Films and Videos Program), review of captioning research, and examination of standards developed by various captioning vendors. The Captioning Key has been applied to both entertainment and educational media, has been used for consumers at all levels (children through adults), has received international distribution, and has been translated into other languages.

These guidelines are a key for vendors performing captioning for the DCMP. The vendor information can be found at this URL: <https://dcmp.org/vendor-info>. The DCMP provides information on how to become an approved vendor on the DCMP Web site.

The information is applicable to vendors and other businesses that provide closed captioning (CC) and subtitles for the deaf and hard of hearing (SDH) of all types of media at various levels. Thus, these guidelines will also be useful to media producers/distributors and others considering captioning their products or learning about captioning.

Captions vs. Subtitles

Captions are text that appear on a video and contain the dialogue and cues to indicate sounds are occurring, such as music or sound effects. Subtitles are text that appear on a video or in a movie and typically contain only a translation of the dialogue.

Captions

The purpose of captioning is to make a video accessible to those who cannot access the audio content, such as for people who are deaf or hard of hearing, and for other situations in which the audio cannot be heard due to environmental noise or a need for silence.

Captions can be either open captions (always turned on, aka “burned in”) or closed captions (can be turned on/off by the viewer). For TV broadcast, closed captions are much more common because they allow each viewer to decide whether they want the captions to be turned on or off. Closed captions are transmitted as a special coded signal sent along with the video picture, and require a decoder in your television or set top box to display the text on the screen. This special coded signal is what broadcasters check for to ensure that your video is in accordance with the law.

For technical reasons, closed captions have many more rules and constraints that affect the timing and the appearance of the text. This means that in practical use, the caption author has limited or no ability to specify the font, size, text styling, and so on. These settings are determined by the decoder which renders the text to the screen when the captions are turned on.

Subtitles

Subtitles are text that appears on a video or in a movie and typically contains only a translation of the dialogue, typically because the dialogue is in a foreign language, or because the dialogue was difficult to hear clearly. Unlike captions, subtitles usually do not convey non-dialogue sounds such as background noise, sound effects, or music cues, because it is presumed that the viewer is able to hear them. Subtitles have fewer rules and limitations than closed captions, and generally have more fonts, styles, and colors available to choose from.

Subtitles can be burned into the video so they can't be turned off. This is called “open subtitles,” “burn-in subtitles” or “hard subtitles,” and is used when the subtitles must always be available, such as when translating foreign language dialogue for a general audience. This is also useful when working with a video format or player that doesn't support soft subtitles or closed captions.

Some formats, such as DVD, Blu-ray, many web-based players, and a few other video formats, can contain one or more tracks of subtitles which can be selected and turned on or off by the player. This is called “soft subtitles.”

Subtitle tracks which contain non-verbal audio cues and mimic the look and feel of closed captions are called “SDH” (Subtitles for the Deaf and Hard of hearing) tracks. SDH tracks are often used to emulate closed captions on formats that don't support closed captioning due to technical limitations, such as Blu-ray.

Installation

The procedures in this chapter explain how to install and upgrade CaptionMaker and MacCaption.

Note: The Demo versions of CaptionMaker or MacCaption can only run in trial mode. When you purchase a license, you must download and install a licensed version in order to activate CaptionMaker or MacCaption.

Topics

- [Installing CaptionMaker 21](#)
- [Installing and Activating MacCaption 29](#)

Installing CaptionMaker

Follow these steps to install CaptionMaker:

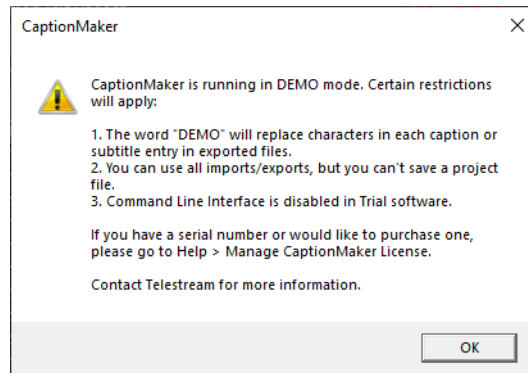
1. Download the CaptionMaker installer and run the setup program.
2. Click Setup to start the CaptionMaker InstallShield Wizard. Follow the on-screen instructions in the installation dialogs.
3. When asked if you want to install the HASP USB dongle drivers:
 - a. Select *Yes* if you are using a USB dongle-based license.
 - b. Select *No* if you will enter your serial number directly in the application.

Click Finish to close the installer.

Buying and Activating CaptionMaker

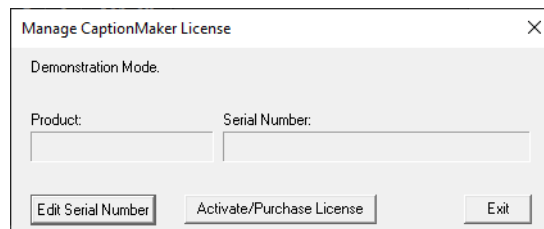
Follow these steps to buy a license and activate the software:

1. After purchasing CaptionMaker, you will receive instructions to download the licensed (non-Demo) version of the software. You must install the licensed version of CaptionMaker in order to activate your license. See the previous section for instructions on installing CaptionMaker.
2. Start the program for the first time by clicking on the CaptionMaker icon on your desktop. The first time the software runs, you will see the following message indicating CaptionMaker is running in DEMO mode.

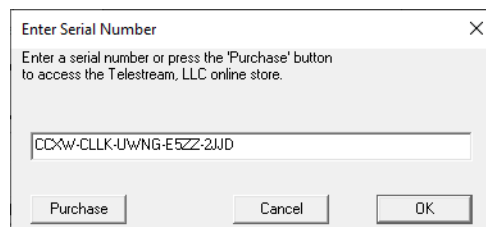


Note: To start the program, you can also go to the Start Menu, Telestream folder, and click CaptionMaker.

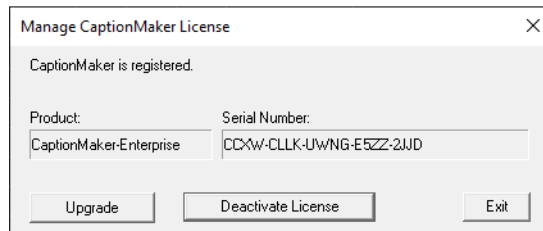
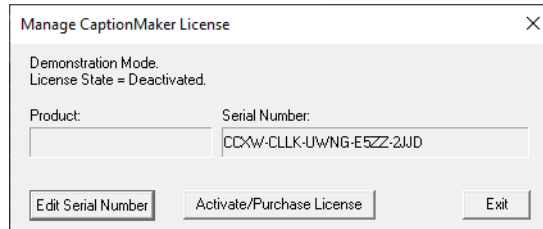
3. Click OK to continue.
4. Open the Help menu, and select Manage CaptionMaker License.
5. In the Manage CaptionMaker License dialog, click Activate/Purchase.



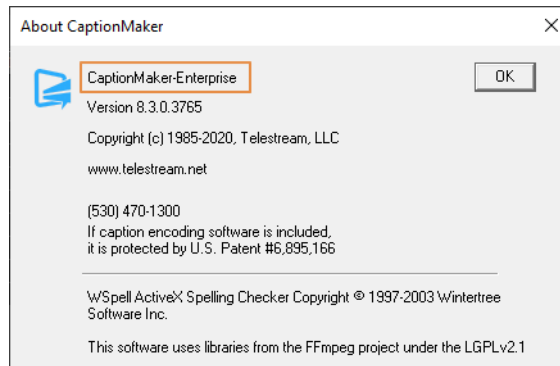
6. Enter your serial number and click OK, or click Purchase if you have not already purchased the software.



7. Click **Activate License**. If you have Internet access, activation will complete automatically. The **Manage CaptionMaker License** says, "CaptionMaker is registered."



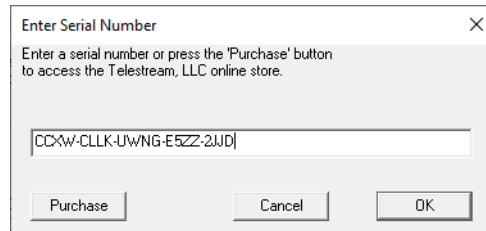
8. Quit and restart CaptionMaker. Then go to **Help > About CaptionMaker**. Verify that the window reads **CaptionMaker-Desktop**, **-Pro**, or **-Enterprise**, matching the license you purchased (as shown below). You are now ready to use CaptionMaker.



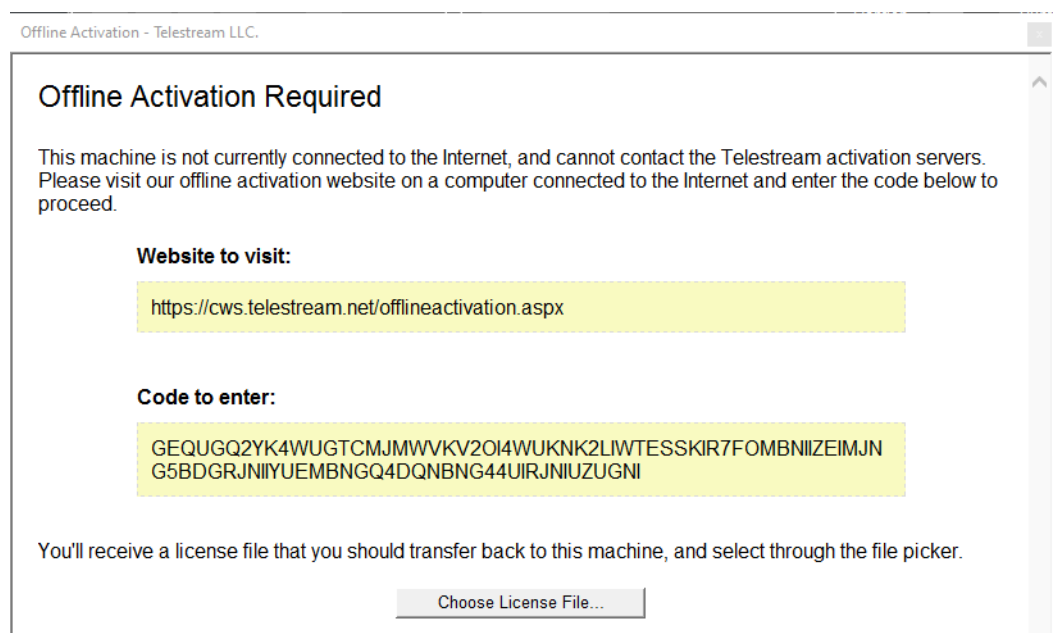
Activating CaptionMaker Offline

Please follow the procedure outlined below to activate CaptionMaker on a computer that has no Internet connection.

1. To begin manual activation, please open the 'Manage CaptionMaker License' dialog from the Help menu.
2. Once in the CaptionMaker License dialog, click on the 'Activate/Purchase License' button. Enter your serial number and then click OK.



3. CaptionMaker opens the Offline Activation Dialog.

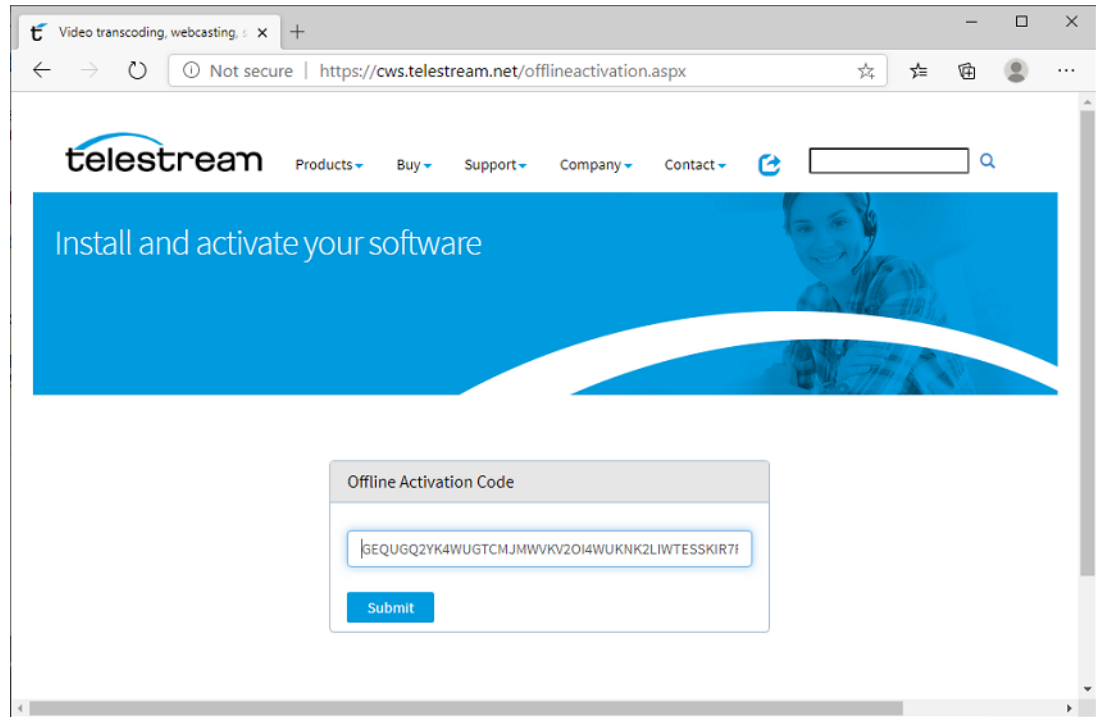


Note: The code in this screenshot is for demonstration purposes only. You must use the code generated on your computer.

4. Copy the code provided in the "Offline Activation" window into TextEdit or Notepad and move the saved file onto a USB thumb drive.

Note: The code is linked to this computer. If you move the license to a new computer, you will need to generate a new Offline Activation code on that computer.

5. Using another computer with Internet access; Copy the code from the USB or thumb drive and enter the Offline activation code at URL: <http://cws.telestream.net/offlineactivation.aspx>.



6. Click the "Submit" button after entering in the code to receive the license file.
7. Once the license file downloads, place on a thumb drive, or a location that is accessible by the Offline computer.
8. Go back to the machine without Internet access and place the License file onto the desktop.
9. From the Offline activation window click "Choose License File..." button and select the License file on your desktop. Click the Open button and CaptionMaker will become activated.

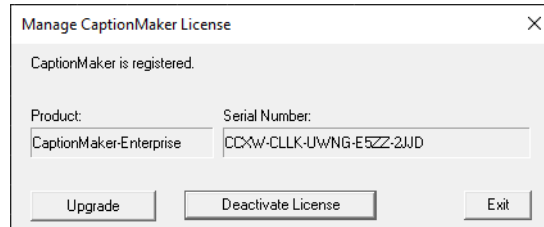
Upgrading CaptionMaker

If you need to use features that are in a higher level of the software, you can buy an upgrade.

Note: If you are upgrading from a previous version and you work with external hardware, such as a caption encoder, VTR deck, or external time code interface, Telestream recommends that you write down your device configuration settings such as port, address, and so on, prior to upgrading, in case these settings need to be entered again.

To upgrade, you can select Help > Purchase/Upgrade to go to the Telestream Online Store web page, or follow these steps to upgrade your license using Help > Manage CaptionMaker License:

1. Open the Help menu, and select Manage CaptionMaker License.
2. In the Manage CaptionMaker License dialog, click Upgrade.

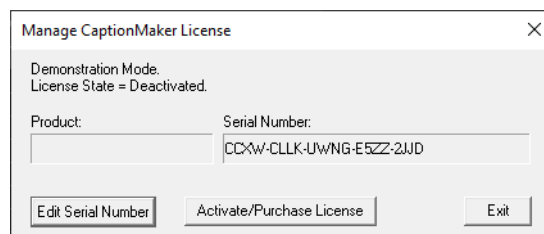


3. In the online store, select the license level you want to buy.
4. Follow the on-screen prompts to purchase the upgrade. The procedure that follows explains how to activate the upgraded license.

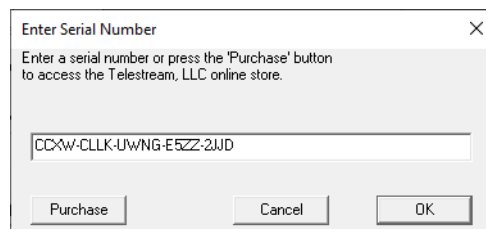
Activating a CaptionMaker Upgrade

Usually the upgrade process will complete automatically, but in some cases you may receive the upgrade key via email. In that case you must deactivate your old key in order to enter the new key. To activate your upgraded license, follow these steps:

1. Open the Help menu, and select Manage CaptionMaker License.
2. Click Deactivate License. This requires an Internet connection.
3. Confirm that the screen shows *The serial number is valid, but it is not activated.*

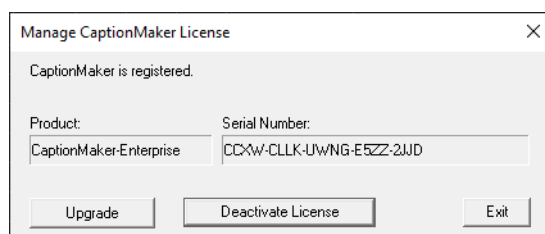


4. Click Edit Serial Number. A dialog box opens to allow serial number entry.



5. Enter the new serial number, and click OK.
6. Click Activate License.

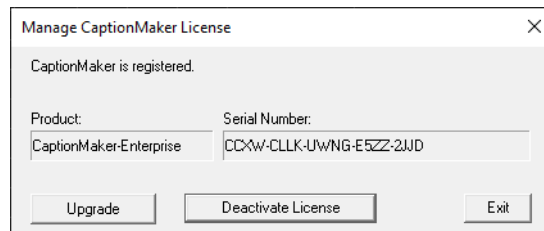
7. Confirm that the screen shows CaptionMaker is registered and shows the upgraded license level.



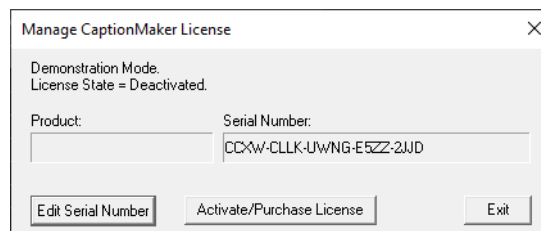
Deactivating a CaptionMaker License

If you want to move the CaptionMaker license to another computer, you must first deactivate it on the current computer. This action requires Internet access. Follow these steps:

1. Open the Help menu, and click Manage CaptionMaker License. A dialog opens indicating that the product is registered and allowing you to deactivate the license.



2. Click Deactivate License.
3. Confirm that the screen shows *The serial number is valid, but it is not activated.*



4. Once deactivated, you may now activate this serial number on another computer where you have installed CaptionMaker or MacCaption.

Deactivating an Offline Activated License

At times it may be necessary to deactivate an offline activated license on a system that has no Internet connection (for example, to update the license support renewal date). In order to do this, you must use the *CaptionMakerForceDeactivate* utility included in the CaptionMaker install directory.

1. Close any open instances of CaptionMaker.
2. Navigate to the CaptionMaker install directory (Default Path: C:\Program Files (x86)\CPC\CaptionMaker)
3. Double click on the 'CaptionMakerForceDeactivate.exe' utility.
4. When prompted, supply your system Administrator credentials.
5. Relaunch CaptionMaker and follow the procedure for [Activating CaptionMaker Offline](#).

Installing and Activating MacCaption

Follow these steps to install MacCaption:

1. Download the Desktop, Pro, or Enterprise licensed version (depending on what you purchased) of the MacCaption installer and open the disk image.
2. Double-click the installer package to open it. The installer displays a Welcome screen and important information. Click Continue. Follow the on-screen instructions in the installation dialogs.

The installation continues, and at completion, a window opens to indicate success. Click Close to complete the installation.

Buying and Activating MacCaption

Buy and activate a MacCaption license as follows:

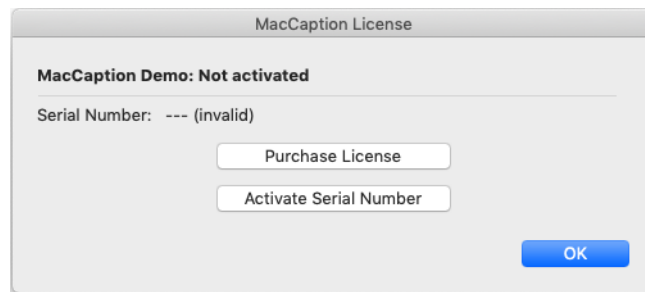
1. After purchasing MacCaption, you will receive instructions to download the licensed (non-Demo) version of the software. You must install the licensed version of MacCaption in order to activate your license. See the previous section for instructions on installing MacCaption.

2. To run MacCaption, find the MacCaption icon in your Applications folder, and double click it.

The first time the software runs, if you have not already activated it on this computer, you will be running in demo mode and restrictions will apply.

3. Open the Help menu, and select Manage MacCaption License.

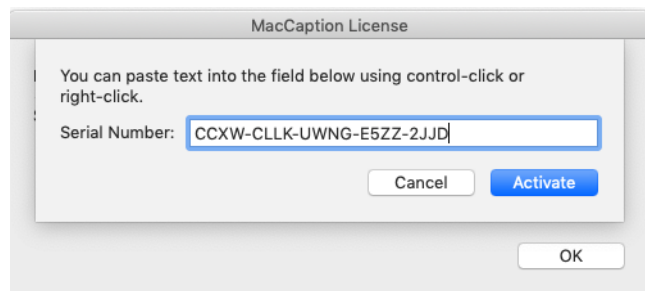
The MacCaption License dialog opens, indicating the software is not yet activated.



3. If you already have a serial number, click *Activate Serial Number*. If not, click on *Purchase License* and follow the on-screen instructions to purchase a license online.

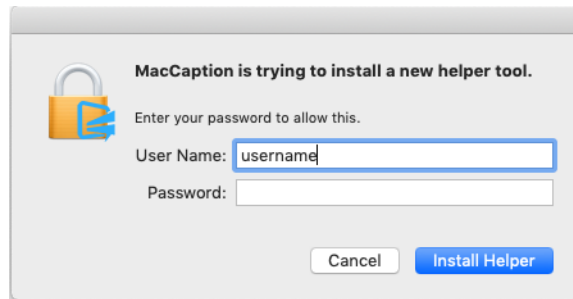
4. Input your serial number and then click *Activate*.

(Note: If you don't have Internet access, you can activate using a different computer that has Web access. See [Activating MacCaption Offline](#).)



5. After clicking *Activate*, MacCaption pops up a dialog asking you to enter your credentials.

6. Enter your Mac user name and password to authenticate your user account, then click Install Helper.



7. Click OK, and then quit and restart the MacCaption software.
8. Go to MacCaption > About MacCaption, and verify that you are running the proper license type (for example, Desktop, Pro, or Enterprise).



9. Click OK. MacCaption is now installed and ready to use.

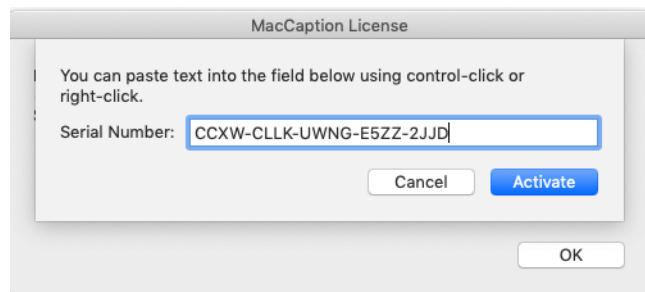
Activating MacCaption Offline

Please follow the procedure outlined below to activate MacCaption on a computer that has no Internet connection:

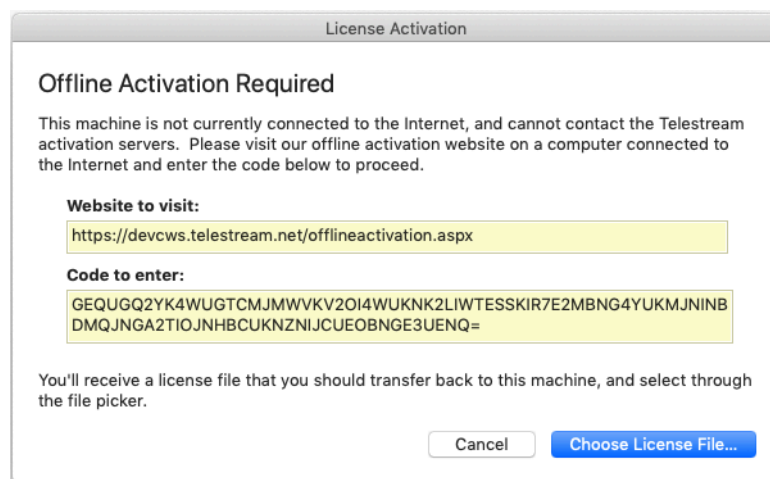
1. To begin the manual activation, please open the 'Manage MacCaption License' dialog from the Help menu.



2. Click on the 'Activate Serial Number' button, enter your serial number, and then click the Activate button.



3. The Offline Activation dialog opens.

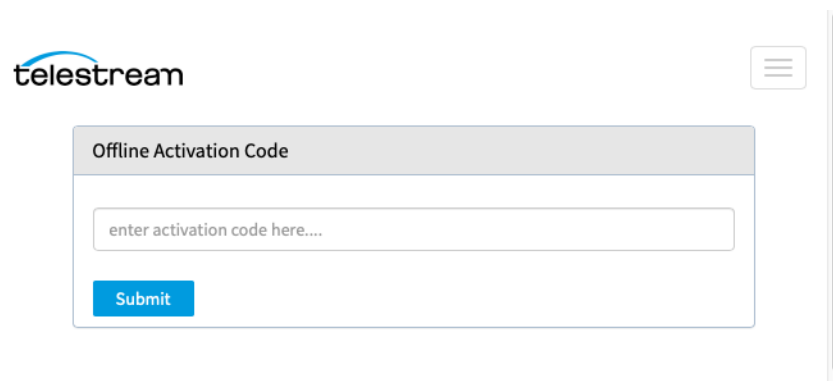


Note: The code in this screenshot is for demonstration purposes only. You must use the code generated on your computer.

4. Copy the code provided in the “Offline Activation” window into TextEdit or Notepad and move the saved file onto a USB thumb drive.

Note: The code is linked to this computer. If you move the license to a new computer, you will need to generate a new Offline Activation code on that computer.

5. Using another computer with Internet access; Copy the code from the USB or thumb drive and enter the offline activation code at URL: <http://cws.telestream.net/offlineactivation.aspx>.

A screenshot of a web browser showing the Telestream logo at the top left. Below the logo is a form titled "Offline Activation Code". The form contains a text input field with the placeholder text "enter activation code here...." and a blue "Submit" button below it. To the right of the form is a vertical scrollbar.

6. Click the “Submit” button after entering in the code to receive the license file.
7. Once the license file downloads, place on a thumb drive, or a location that is accessible by the Offline computer.
8. Go back to the machine without Internet access and place the License file onto the desktop.
9. From the Offline activation window click “Choose License File...” button and select the License file. You will be prompted for your admin user name and computer password to proceed with the activation. Enter your computer password and you will see “Activation Succeeded”.

10. Quit and restart MacCaption. Then go to MacCaption > About MacCaption, and verify that you are running the proper license type (for example, Desktop, Pro, or Enterprise).

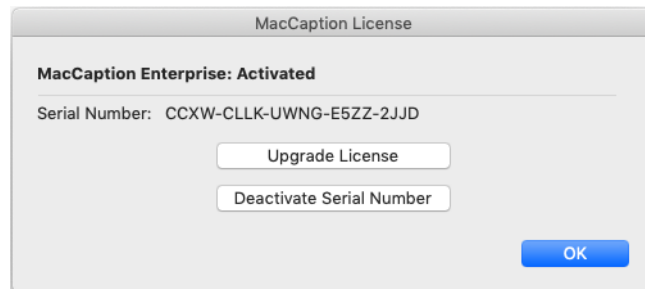


Upgrading MacCaption

If you need to use features that are in a higher level of the software, you can purchase an upgrade.

Note: If you are upgrading from a previous version and you work with external hardware, such as a caption encoder, VTR deck, or external time code interface, Telestream recommends that you write down your device configuration settings such as port, address, and so on, prior to upgrading, in case these settings need to be entered again.

1. Select *Help > Manage MacCaption License*. MacCaption opens the MacCaption License window.
2. Click Upgrade License.

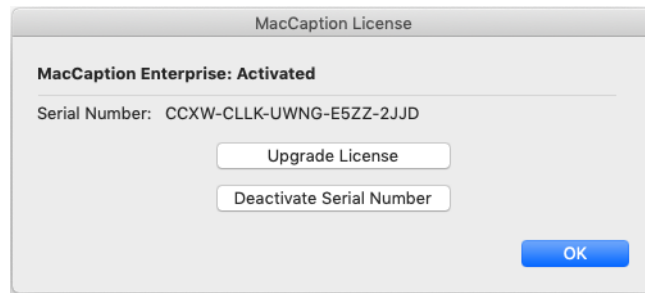


3. The MacCaption online store window will open. Follow the on-screen prompts to select and purchase your upgrade.

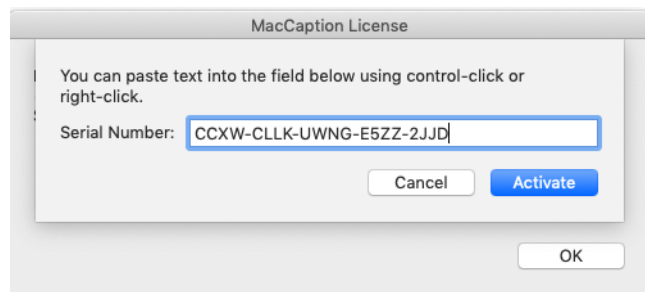
Activating a MacCaption Upgrade

Usually the upgrade process will complete automatically, but in some cases you may receive the upgrade key via email. In that case you must deactivate your old key in order to enter the new key. To activate your upgraded license, follow these steps:

1. Open the MacCaption Help menu, and select Manage MacCaption Activation. The MacCaption License window opens.

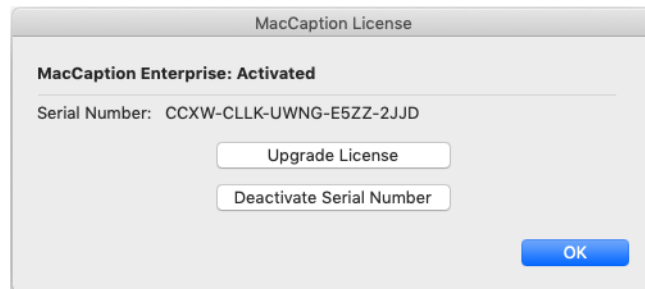


2. Ensure that you have Internet access and then click on Deactivate Serial Number. You will be prompted to enter your Mac username and password.
3. After deactivation, MacCaption will automatically exit. Start the software again. It will start in Demo mode.
4. Open the Help menu, and select Manage MacCaption Activation.
5. Click Activate Serial Number. The Serial Number entry form opens.



6. Enter the new upgrade serial number that was emailed to you, and click Activate. You will be prompted to enter your Mac username and password. Click Install Helper to conclude activation.

7. Confirm that the screen now shows “MacCaption (Version): Activated” and displays the upgraded license level.

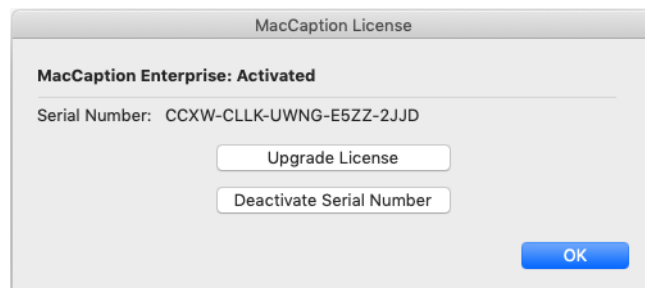


8. Click OK. Then quit and restart MacCaption.

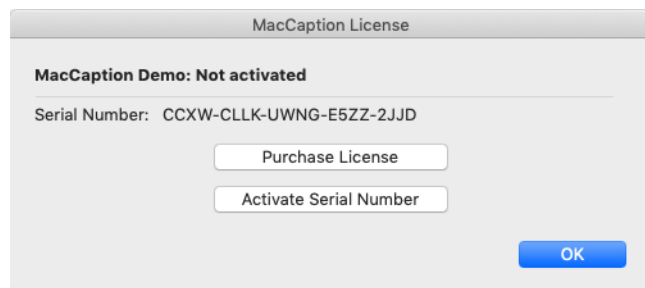
Deactivating Your MacCaption License

If you want to move the MacCaption license to another computer, you must first deactivate it on the current computer. This action requires Internet access. Follow these steps:

1. Go to the MacCaption Help menu and select Manage MacCaption Activation. The MacCaption License window opens.



2. Click on Deactivate Serial Number. You must enter your Mac username and password in order to complete the deactivation process.
3. Confirm that the screen shows “MacCaption (Version): Not Activated”.



4. Once deactivated, you may now activate this serial number on another computer where you have installed CaptionMaker or MacCaption.

Quick Start

This chapter provides an introduction to CaptionMaker and MacCaption features and operation.

Topics

- [CaptionMaker Basics 39](#)
- [MacCaption Basics 51](#)
- [Exporting Your Finished Project 61](#)

CaptionMaker Basics

The following topics describe some basic operations in CaptionMaker.

For complete instructions and information see the CaptionMaker User Guide. This is available from Help > User Guide (Local), and from the Telestream web site.

Transcribing a Movie

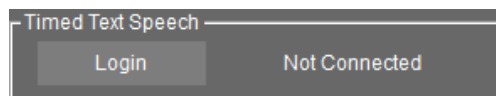
CaptionMaker uses the Timed Text Speech service to analyze the audio track of a video file and automatically populate the text and timing information directly into the text edit cells as it becomes available. Timed Text Speech processing operates from servers in Telestream Cloud. You need to set up a Telestream Cloud account to use Timed Text Speech, and when using Timed Text Speech, CaptionMaker must be connected to the Internet in order to create the transcript.

See more details of the transcribing options in the *Timed Text Speech* chapter of the CaptionMaker User Guide.

How to Transcribe a Movie

The following describes the procedure to transcribe a movie file with CaptionMaker.

1. Open the movie in CaptionMaker. See [Opening a Movie in CaptionMaker](#) for detailed instructions.
2. Click the Login button in the Timed Text Speech panel.



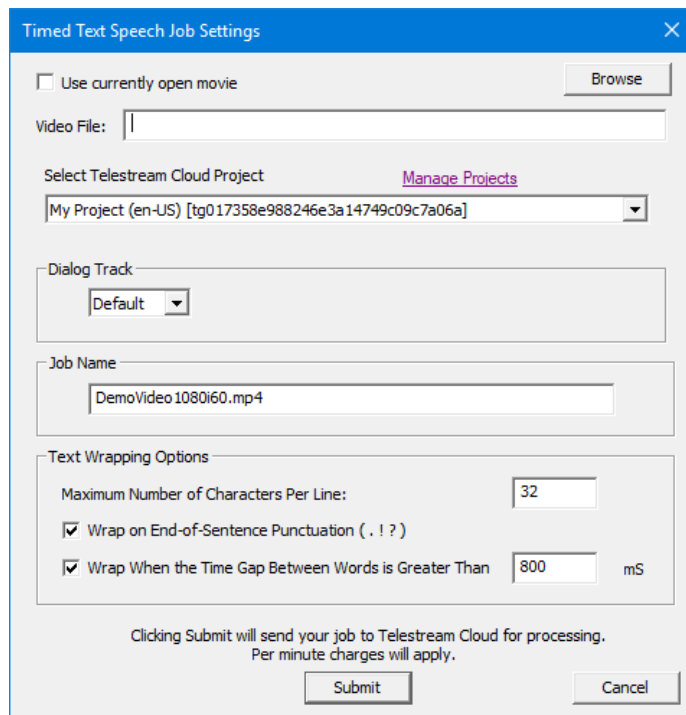
3. Enter your User Name and Password in the Telestream Cloud Login dialog, then click OK.

Note: If you don't have a Telestream Cloud account, click the "Sign up here" link. That will take you to the Telestream Cloud site where you can create an account and start a project in Telestream Cloud.

4. Click the Auto-Transcribe button in the Timed Text Speech panel (or select Transcription > Transcribe Movie).



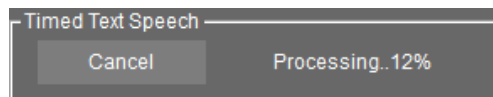
5. The Timed Text Speech Job Settings dialog opens.



6. Select a movie using one of the following methods:
 - a. Select Use Currently Open Movie to transcribe the loaded movie.
 - b. To transcribe a movie file that is *not* open in CaptionMaker, de-select the checkbox for Use Currently Open Movie, then click the Browse button to navigate to and select the video file you want to transcribe. (The video will not be loaded into the Preview Panel, and only the audio portion is transmitted to Telestream Cloud for processing.)

Note: For more details about the options in the Timed Text Speech Job Settings dialog, see *Job Settings for Timed Text Speech* in the *Timed Text Speech* chapter of the CaptionMaker User Guide.

7. Select the Telestream Cloud project you want to use for this video.
8. Select the Dialog Track (audio track) in your source video file that you want to submit to Telestream Cloud for transcription.
9. Enter an optional Job Name. This defaults to the open movie file name.
10. Make any adjustments to the Text Wrapping Options.
11. Click Submit to send the job to Telestream Cloud for processing.
12. The transcription process begins and text starts populating the text cells while it is being transcribed. The percent of processing that has completed is indicated in the Timed Text Speech panel.




13. You can start editing the text as soon as the first results start appearing in the text cells. See [Using Transcription Edit Mode](#) below.





14. Finished is displayed in the Timed Text Speech panel when the transcribing process has concluded.

Using Transcription Edit Mode

To switch into Transcription Edit Mode, simply press the  button, or select Transcription Edit Mode from the Transcription menu.

Click in the text cell or row you want to start editing, then press F3, or press the

  button to start or pause playback.

When Transcription Edit Mode is active, playback will start automatically when you select a text row if the Auto Play/Pause option is selected in the Transcription Edit Mode Settings dialog. Video playback will loop from the start to end time of the currently selected text cell.

A special editing mode is also activated, which provides the ability to quickly navigate through cells and words to easily perform transcript edits by using unique keyboard shortcuts. For detailed descriptions of the options, see *Transcription Edit Mode* in the *Timed Text Speech* chapter of the CaptionMaker User Guide.

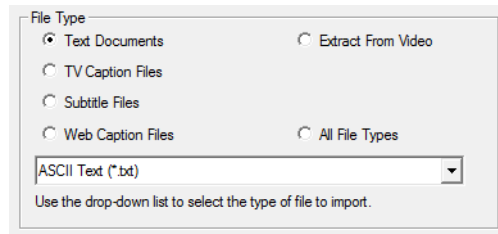
The following is a brief description of some of the keyboard shortcuts and special behaviors that are available when Transcription Edit Mode is active:

- The Up and Down arrow keys move to the start of the previous or next cell.
- The Left and Right arrow keys move back or forward one word at a time.
- Shift-Left arrow and Shift-Right arrow select the previous or next word. You can then type over the word if it was incorrect.
- Control-Up arrow and Control-Down arrow push or pull a word to the next cell.
- Control-Right or Left arrow keys moves the cursor one character right or left.
- Shift-Up Arrow toggles capitalization of the first letter of the current word.
- Control-Enter splits the cell at the cursor position.
- Entering sentence punctuation such as period, question mark, or exclamation point will automatically move to the end of the current word, insert the punctuation, and capitalize the first word of the next sentence. Words in the current cell that are to the right of the punctuation mark are pushed down to the next cell, as if Split Cell were clicked.

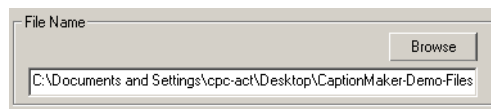
Importing Text Files

CaptionMaker can import plain ASCII text, MS Word, or an RTF file. Follow these steps to import a text file to use as your captions:

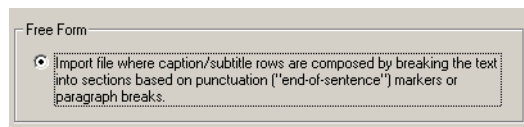
1. Click on File on the top menu bar, and then select Import, or drag and drop a text file from Windows Explorer into the CaptionMaker text area.
2. Under File Type, select Text Documents, and then select the type of document.



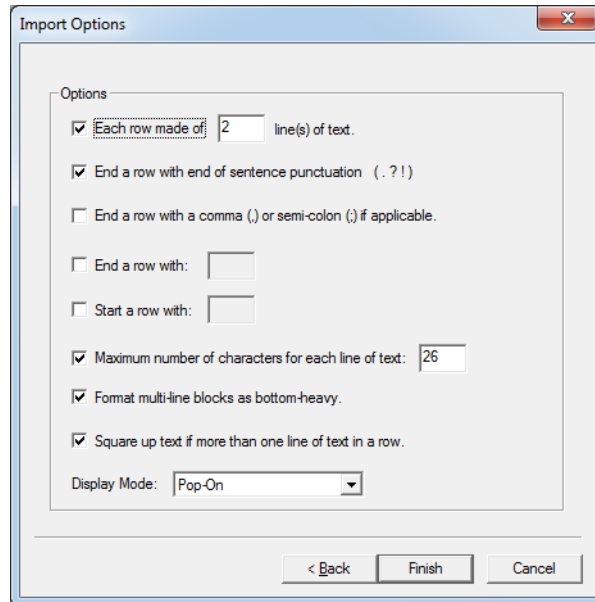
3. Click Browse, and select your caption text file.



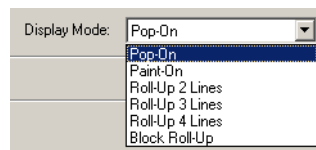
4. Click Next, and make sure that the Free Form option is selected.



- Click Next again, and select the Options for how to break up the text into caption-sized pieces. We recommend the default settings for most captioning projects. The maximum number of characters for each line should be from 26 to 32 characters.



- Select Display Mode for text, such as Pop-On, Paint-on, Roll-up, and so on.



Note: For most post-production captioning projects, we recommend using the Pop-on mode. Roll-up captions are typically used for live captioning.

- Click Finish.

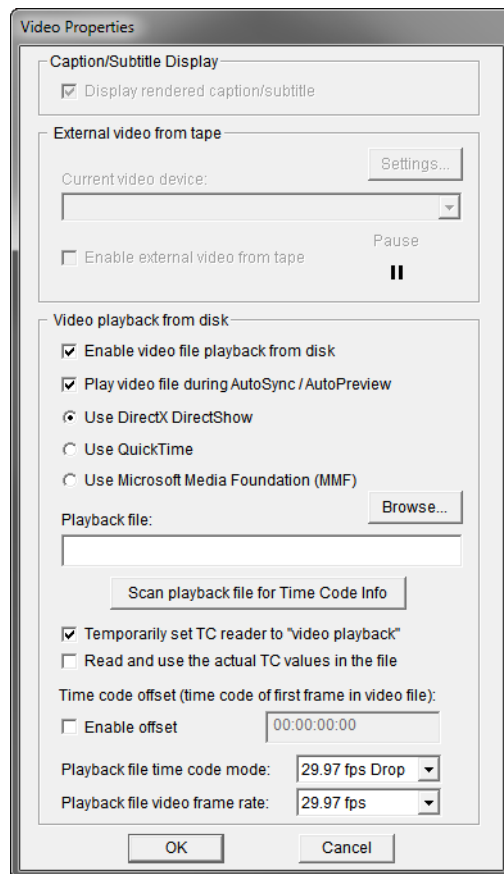
Opening a Movie in CaptionMaker

CaptionMaker supports three technologies for playing video files: DirectX-DirectShow, QuickTime (if installed), and Microsoft Media Foundation (MMF). For more information on what types of video files can be played in CaptionMaker, please see the CaptionMaker User's Guide.

Note: Opening a movie only loads the video and its audio for playback. If the video contains closed captions, a separate import step is needed to bring in the captions: File > Import > Extract from Video > [select file type] > [select file].

You can open a new movie, or replace the currently loaded movie.
To open or replace a movie follow these steps:

1. From the File menu choose Open Movie, or drag and drop a movie/video file into CaptionMaker's Video Preview panel. The Video Properties dialog opens.



2. A file type is automatically selected based on the file extension of the video you're opening, however you can choose a different option if you prefer. You can select one of the following playback options for the type of video file you are opening:
 - a. **DirectX DirectShow.** The default for playing Windows Media (WMV and AVI) files.
 - b. **QuickTime.** The default for playing QuickTime files such as MOV and also works well for MP4. QuickTime must be installed to use this option.
 - c. **Microsoft Media Foundation (MMF).** For playing MP4 files if QuickTime is not installed.
3. Click Browse and locate the video file that you want to import. (The file is already selected if you used the drag-drop method)
4. Make any other desired adjustments, then click OK.

The video appears in the CaptionMaker Video Preview panel.

Formatting Text

After you import the text document, the text will already be broken up into caption-sized pieces. However, you may want to format them to be more aesthetically pleasing, for example based on the recommendations in DCMP's Captioning Key guidelines.



Each operation will apply to the currently selected caption row(s). To select more than one caption, click on the number of first caption you want to select (this number is on the left side of each caption), then, while holding the Shift key, click on the number of the last caption you want to select. You can also use the mouse to drag and select a range. Or, to select all the captions, click the column header at the top of the grid.

1. The Left, Center, and Right Position buttons change the text horizontal positioning and the justification.
2. To stylize the text, select the text and click the Underline or Italic buttons.
3. To change the text color, highlight the text and select a color option from Text Color button on the Main toolbar (the A with a color ribbon below it).


Note: It is not recommended to use bold formatting for captions since in most TV display situations the text will flash.


4. To move the text to the top or bottom of the screen, click on the Top or Bottom buttons in the toolbar. To fine control the vertical position, right click on the vertical (V) column in the grid and select the position.
5. The Push Last Word and Pull First Word buttons (up and down arrows) allow you to quickly move text a word at a time between caption rows.
6. The Expand and Compress Text Block buttons allow you to adjust the width of the lines. These perform a word wrap to increase or decrease the number of caption lines, ranging from 1-4 lines. It is recommended to have 1-2 lines for most captions.
7. The Alternate Break Formatting button will change where the line breaks occur. It is better to make the text bottom heavy (shorter lines towards the top, longer lines towards the bottom.)
8. To change the Display Mode, select a row, or multiple rows, and right click in the Display column of a highlighted row and select a display mode. To change the Display Mode for all captions, click Display in the column header to select all rows, then right click to select the mode. (Pop-on is recommended for most captions.)
9. To insert a music symbol, open the Attribute menu > Insert Music Symbol(s) > Single Music Symbol, or Surrounding Music Symbols. Press Control+M for the single music symbol.
10. To change text to all Upper, Lower, or Sentence Case, go to Format > Upper/Lower case.
11. You can find a word in the text, or replace occurrences of a given text, using the menus Edit > Find..., and Edit > Replace...


Row Operations


The Row Operations tools provide a quick way to insert, delete, merge, split, and select rows.



Insert Row(s).  Create a new blank row before the currently selected row. When you have multiple rows selected it inserts that number of rows.

Delete Row(s).  Delete the currently selected row(s).

Merge Rows.  Combine two selected rows into one row.

Split Row.  Splits the current row at the position of the text cursor.

Select Row.  Click to open the Select Caption/Subtitle Record dialog. Type the row you want to go to and click OK.




Synchronizing Captions (Time Stamping)

When ready to synchronize the text with the video, in many cases you can simply use the Auto Time Stamp feature by going to the menu Time Code > Auto Time Stamp.

Manual Time Stamping

Manual time stamping is needed in some cases, such as videos that are not in English or that have loud music. Manual time stamping allows you to associate a time code to each block of text so it will be in sync with the dialogue.

To perform manual time stamping:





1. Rewind the video all of the way to the beginning by dragging the slider, that's just below the video, all of the way to the left.
2. Click the Time Stamp button . Playback starts, but the captions do not play along.
3. Click the Send Caption, or In Point button  each time you hear the first word of a caption. Or you can press the + key on your extended keyboard number pad.
4. Every time you press the + key, or the In Point button, time code appears in Start for that row and the next row is automatically selected. Continue until you have set the start time for each row of captions.
5. To stop video playback, press the Play/Pause button .

Checking the Timing

After running ATS, or after manual time stamping, you are ready to check the timing of the captions by using Preview Play. At the same time you can check the location of the captions to see if position adjustments are needed. Each caption should start when the first word of the caption is spoken.

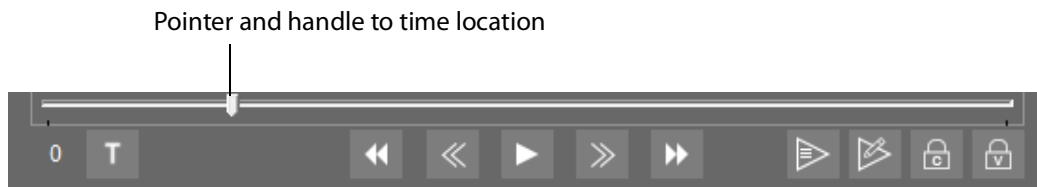
Preview Play

To preview the caption and video synchronization:

1. Rewind the video all of the way to the beginning by dragging the slider, that's just below the video, all of the way to the left.
2. Press the Preview Play button . This engages the Auto Row button  which makes the captions change with the video, following the Start and Stop times that are set.
3. To stop the video, press the Play/Pause button .
4. You can now use the Play/Pause button  to start and stop the video and the captions will stay synchronized since the Auto Row button is engaged.

Now that you've put together a project, you need to export the project. Refer to [Exporting Your Finished Project](#) later in this guide.

Caption and Video Playback Controls in CaptionMaker



Playback Speed Indicator. Indicates the current playback speed. Displays 0 when video is not playing. For example, +1 is normal speed forward, -1 is normal speed in reverse, and +2 is forward speed twice as fast as normal speed. When using the J-K-L keyboard controls, multiple pressing of the J or L key will increase the speed in reverse (J key) or forward (L key).

Transcription Edit Mode. Toggles Transcription Edit Mode on and off.

Rewind. Press to put the video into rewind mode.

Step Back. Press to go back one frame. Hold Shift and press to go back about 1/3 of a second. Hold Control and press to go back about 1 second.

Play/Pause. Press to play and pause the video.

Step Forward. Press to go forward one frame. Hold Shift and press to go forward about 1/3 of a second. Hold Control and press to go forward about 1 second.

Fast Forward. Press to put the video into fast forward mode.

Preview Play. Press to start playback and engage the Auto Row button . This makes the captions change along with the video, following the Start and Stop times that are set.

Time Stamp. . This button starts video playback, but the captions do not play along. Use this mode when you want to edit the In points (start times) of the captions and you don't want the captions to advance.

Auto Row (Captions Follow Video). . When this is pressed (toggled on), the captions change along with the video, following the Start and Stop times that are set.

Auto Shuttle (Video Follows Captions). When this is pressed (toggled on), and you select a caption row, the video automatically jumps to the time of that caption. You can also quickly move through the caption rows using the up and down arrow keys, and the video follows along.

MacCaption Basics

The following topics describe some basic operations in MacCaption.

Transcribing a Movie File

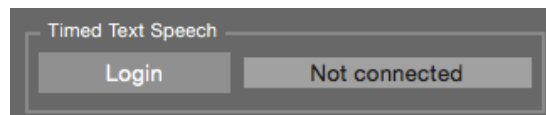
MacCaption uses the Timed Text Speech service to analyze the audio track of a video file and automatically populate the text and timing information directly into the text edit cells as it becomes available. Timed Text Speech processing operates from servers in Telestream Cloud. You need to set up a Telestream Cloud account to use Timed Text Speech, and when using Timed Text Speech, MacCaption must be connected to the Internet in order to create the transcript.

See more details of the transcribing options in the *Timed Text Speech* chapter of the MacCaption User Guide.

How to Transcribe a Movie

The following describes the procedure to transcribe a movie file with MacCaption.

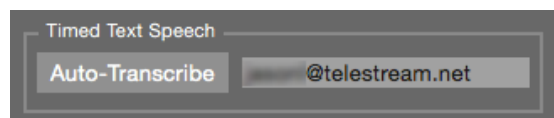
1. Open MacCaption and load your movie file. See [Opening a Movie in MacCaption](#) for detailed instructions.
2. Click the Login button in the Timed Text Speech panel (or select Transcription > Telestream Cloud Account).



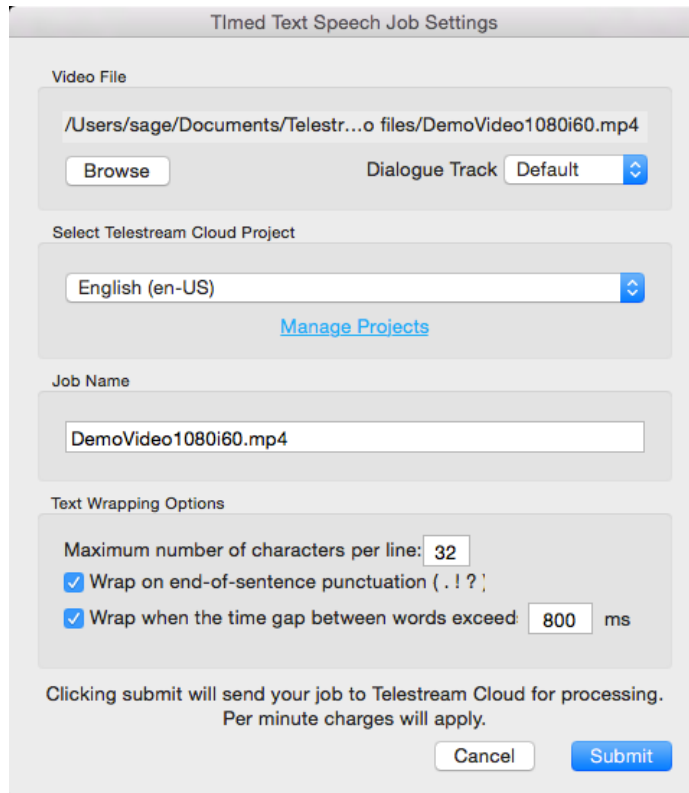
3. Enter your User Name and Password in the Telestream Cloud Login dialog, then click OK.

Note: If you don't have a Telestream Cloud account, click the "Sign up here" link. That will take you to the Telestream Cloud site where you can create an account and start a project in Telestream Cloud.

4. Click the Auto-Transcribe button in the Timed Text Speech panel (or select Transcription > Transcribe Movie).



5. The Timed Text Speech Job Settings dialog opens.



The dialog box is titled "Timed Text Speech Job Settings". It contains several sections:

- Video File:** A text field showing the path "/Users/sage/Documents/Telestr...o files/DemoVideo1080i60.mp4". Below it is a "Browse" button and a "Dialogue Track" dropdown menu set to "Default".
- Select Telestream Cloud Project:** A dropdown menu showing "English (en-US)". Below it is a blue link labeled "Manage Projects".
- Job Name:** A text field containing "DemoVideo1080i60.mp4".
- Text Wrapping Options:**
 - A text field for "Maximum number of characters per line:" set to "32".
 - A checked checkbox for "Wrap on end-of-sentence punctuation (. ! ? ')".
 - A checked checkbox for "Wrap when the time gap between words exceed" followed by a text field set to "800" and the unit "ms".
- Footer:** A message stating "Clicking submit will send your job to Telestream Cloud for processing. Per minute charges will apply." Below this are "Cancel" and "Submit" buttons.

6. Use the Video File currently loaded in MacCaption, or click the Browse button to navigate to and select the video file you want to transcribe. When you Browse and select a video file, it is loaded into MacCaption.

Note: For more details about the options in the Timed Text Speech Job Settings dialog, see *Job Settings for Timed Text Speech* in the *Timed Text Speech* chapter of the MacCaption User Guide.

7. Select the Dialogue Track (audio track) in your source video file that you want to submit to Telestream Cloud for transcription.
8. Select the Telestream Cloud project you want to use for this video.
9. Enter an optional Job Name. This defaults to the open movie file name.
10. Make any adjustments to the Text Wrapping Options.
11. Click Submit to send the job to Telestream Cloud for processing.
12. The transcription process begins and text starts populating the text cells while it is being transcribed. The percent of processing that has completed is indicated in the Timed Text Speech panel.



The panel is titled "Timed Text Speech". It contains two buttons: "Cancel" and "Processing... 22%".

13. You can start editing the text as soon as the first results start appearing in the text cells. See [Using Transcription Mode](#) below.



14. Finished is displayed in the Timed Text Speech panel when the transcribing process has concluded.

Using Transcription Mode

To switch into Transcription Mode, simply press the **T** button, or select Transcription Mode from the Transcription menu.

Click in the text cell or row you want to start editing, and press the **▶** **||** button to start or pause playback.

When Transcription Mode is active, playback will start automatically when you select a text row if the Auto Play/Pause option is selected in the Transcription Mode Settings dialog. Video playback will loop from the start to end time of the currently selected text cell.

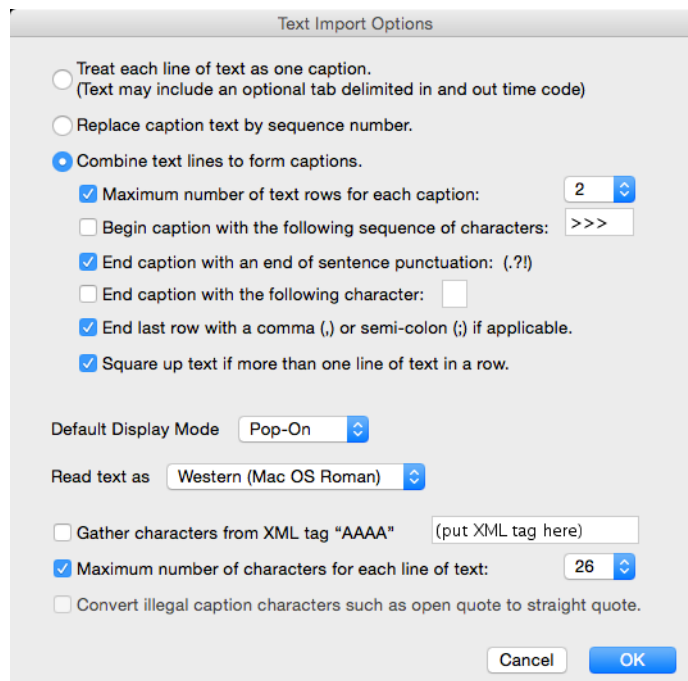
A special editing mode is also activated, which provides the ability to quickly navigate through cells and words to easily perform transcript edits by using unique keyboard shortcuts. For detailed descriptions of the options, see *Transcription Mode* in the *Timed Text Speech* chapter of the MacCaption User Guide.

The following is a brief description of some of the keyboard shortcuts and special behaviors that are available when Transcription Mode is active:

- The Up and Down arrow keys move to the start of the previous or next cell.
- The Left and Right arrow keys move back or forward one word at a time.
- Shift-Left arrow and Shift-Right arrow select the previous or next word. You can then type over the word if it was incorrect.
- Option-Up arrow and Option-Down arrow push or pull a word to the next cell.
- Command-Right or Left arrow keys moves the cursor one character right or left.
- Shift-Up Arrow toggles capitalization of the first letter of the current word.
- Command-Enter splits the cell at the cursor position.
- Entering sentence punctuation such as period, question mark, or exclamation point will automatically move to the end of the current word, insert the punctuation, and capitalize the first word of the next sentence. Words in the current cell that are to the right of the punctuation mark are pushed down to the next cell, as if Split Cell were clicked.

Importing Text Files

1. Make sure that your text is saved as plain text or as a script file. If it is not, this can be done easily in the TextEdit program on your Mac.
2. Go to File > Import > Plain Text File and select a file to open, or drag and drop the text file onto the right side text area in MacCaption. The Text Import Options dialog opens.
3. You can select various options for how the text is automatically broken up into caption sized pieces. The maximum number of characters for each line should be 26. For most captioning projects we recommend the settings shown in the following Text Import Options dialog:



The image shows a 'Text Import Options' dialog box with the following settings:

- ☐ Treat each line of text as one caption.
(Text may include an optional tab delimited in and out time code)
- ☐ Replace caption text by sequence number.
- ☒ Combine text lines to form captions.
 - ☒ Maximum number of text rows for each caption: 2
 - ☐ Begin caption with the following sequence of characters: >>>
 - ☒ End caption with an end of sentence punctuation: (.?!)
 - ☐ End caption with the following character:
 - ☒ End last row with a comma (,) or semi-colon (;) if applicable.
 - ☒ Square up text if more than one line of text in a row.

Default Display Mode: Pop-On

Read text as: Western (Mac OS Roman)

- ☐ Gather characters from XML tag "AAAA" (put XML tag here)
- ☒ Maximum number of characters for each line of text: 26
- ☐ Convert illegal caption characters such as open quote to straight quote.

Buttons: Cancel, OK

Opening a Movie in MacCaption

MacCaption uses the Mac OS AV Foundation library to play movie files. The types of movie files supported depends on your Mac OS version and on any AV Foundation plugins or extensions that you might have installed. Note that some other AV Foundation-based applications (e.g. QuickTime Player X) include additional format support beyond what AV Foundation makes available to other applications like MacCaption.

Note: Opening a movie only opens the video and audio for playback. If the video contains closed captions, a separate import step is needed to bring in the captions (*File > Import > Extract CC from Media > [select format] > [select file]*).

To open or replace a movie, go to *File > Open Movie*, or drag and drop that video file into the video preview area. Your video will appear in the preview panel. When a movie is currently loaded, the new movie will replace it.

Formatting Text

After you import the text document, the text will already be broken up into caption-sized pieces. However, you may want to format them to be more aesthetically pleasing. As a reference, formatting recommendations are provided in DCMP's Captioning Key guidelines.



Each operation will apply to the currently selected text row(s). To select more than one row, click on the number of first row you want to select (this number is on the left side of each caption), then, while holding the Shift key, click on the number of the last caption you want to select. Or, to select all the captions, use the menu Edit > Select All, or press Cmd-A.



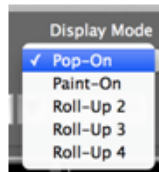
In the above screenshot, captions 2 through 4 are selected (highlighted), and will be affected by editing operations described below.

1. The Left, Center, and Right Position buttons change the text horizontal positioning and the justification.
2. To stylize the text, highlight the text and select Underline or Italic.
3. To change the text color, highlight the text and select a color option from the menu Caption > Attributes > Text Color.

Note: It is not recommended to use bold formatting for captions since in most TV display situations the text will flash.

4. To move the text to the top or bottom of the screen, click the Move to Top or Move to Bottom buttons.
5. To adjust the horizontal and vertical caption positioning (including split captions), you can click the cursor in the video area, then use the mouse or the keyboard arrow keys to move the captions around on the screen.
6. The Push Word Down and Pull Word Up buttons (up and down arrows) allow you to quickly move text a word at a time between adjacent caption rows.

7. The Compress Line Length and Expand Line Length buttons allow you to adjust the width of the lines, which can word wrap to increase or decrease the number of caption lines, ranging from 1-4 lines. We recommend 1-2 lines for most captions.
8. The Alternate Break button will change where the line breaks occur. It is better to make the text bottom heavy (shorter lines towards the top, longer lines towards the bottom.)
9. To change the Display Mode, select a row, or multiple rows, then select the Display Mode menu to select the display option. (Pop-on is recommended for most captions.)





10. To insert a music symbol, go to Format > Insert Music Symbol(s) > Single Music Symbol, or Surrounding Music Symbols, or press Command+M for the Single Music Symbol.
11. To change text to all Upper, Lower, or Sentence Case, go to Format > Upper and Lower case.
12. You can find a word in the text, or replace occurrences of a given text, using the menu Edit > Find.


Row Operations

The Row operations tools provide a quick way to insert, delete, split, and merge rows.



Insert Caption Row.  Create a new blank row above the currently selected row. When you have multiple rows selected it inserts that number of rows.

Delete Caption(s).  Delete the currently selected caption row(s).

Split Caption.  Splits the current row at the position of the text cursor and places the text after the cursor in a new row. You can also press the Return key to split the row at the cursor position. When the cursor is at the end of the text and you press the Return key a blank row is inserted after the current row.

Merge Caption.  Combine the row below and the current selection into one row.




Synchronizing Captions (Time Stamping)

When ready to synchronize the text with the video, in many cases you can simply use the Auto Time Stamp feature by going to the menu Time Code > Auto Time Stamp.

Manual Time Stamping

Manual time stamping is needed in some cases, such as videos that are not in English or that have loud music. Manual time stamping allows you to associate a time code to each block of text so it will be in sync with the dialogue.

To perform manual time stamping:





1. Rewind the video all of the way to the beginning by dragging the slider, that's just below the video, all of the way to the left.
2. Click the Time Stamp button . Playback starts, but the captions do not play along.
3. Click the Mark In button  each time you hear the first word of a caption. Or you can press the Option-Command-M shortcut keys.
4. Every time you press the Mark In button, time code appears in Starting Time for that row and the next row is automatically selected. Continue until you have set the start time for each row of captions.
5. To stop video playback, press the Play/Pause button .

Checking the Timing

After running Auto Time Stamp, or after manual time stamping, you are ready to check the timing of the captions by using Preview Play. At the same time you can check the location of the captions to see if position adjustments are needed. For proper timing, each caption should start when the first word of the caption is spoken.

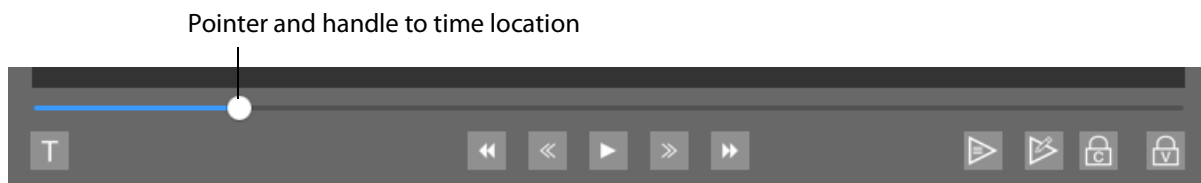
Preview Play

To preview the caption and video synchronization:

1. Rewind the video all of the way to the beginning by dragging the slider, that's just below the video, all of the way to the left.
2. Press the Preview Play button . This engages the Captions Follow Video button  which makes the captions change with the video, following the Start and End times that are set for each caption.
3. To stop the video, press the Play/Pause button .
4. You can now use the Play/Pause button  to start and stop the video and the captions will stay synchronized since the Captions Follow Video button is engaged.

Now that you've put together a project, you need to export the project. Refer to [Exporting Your Finished Project](#).

Caption and Video Playback Controls in MacCaption



Transcription Mode. Toggles Transcription Mode on and off.

Rewind. Press to put the video into rewind mode. Press multiple times to incrementally increase the speed.

Frame Step Reverse. Press to go back one frame. Hold Shift and press to go back 10 frames (about 1/3 of a second at 30 fps), Option for 30 frames (about 1 second at 30 fps), and Control for 300 frames (about 10 seconds at 30 fps).

For an example of different frame rates, holding the Option key (moving 30 frames) would be about 1.25 seconds for 24 fps, about 1 second for 29.97 fps, and about 0.5 second for a 59.98 fps movie.

The Left Arrow key also moves the playhead back one frame. Hold Shift + Left Arrow key to move back 30 frames (about 1 second at 30 fps).

Play/Pause. Press to play and pause the video. You can also press the Space bar.

Frame Step Forward. Press to go forward one frame. Hold Shift and press to go forward 10 frames (about 1/3 of a second at 30 fps), Option for 30 frames (about 1 second at 30 fps), and Control for 300 frames (about 10 seconds at 30 fps).


For an example of different frame rates, holding the Option key (moving 30 frames) would be about 1.25 seconds for 24 fps, about 1 second for 29.97 fps, and about 0.5 second for a 59.98 fps movie.


The Right Arrow key also moves the playhead forward one frame. Hold Shift + Right Arrow key to move forward 30 frames (about 1 second at 30 fps).

Fast Forward. Press to put the video into fast forward mode. Press multiple times to incrementally increase the speed.

Preview Play. Press to start playback and engage the Captions Follow Video button . This makes the captions change along with the video, following the Start and End times that are set. Use this to preview captions after they have been synchronized to the video.

Time Stamp. This button starts video playback, but the captions do not play along. Use this mode when you want to edit the In points (start times) of the captions with new timing by pressing the Mark In button and you don't want the captions to advance using the existing timing.

Captions Follow Video.  When this is pressed (toggled on), the captions change along with the video, following the Start and End times that are set.

Video Follows Captions.  When this is pressed (toggled on), and you select a caption row, the video automatically jumps to the time of that caption. You can also quickly move through the caption rows using the up and down arrow keys, and the video follows along.

J-K-L Playback Control

You can use the J-K-L keyboard controls to shuttle the video, the same way that popular video editing applications operate.

To use the J-K-L keyboard control, press J to rewind, K to stop, and L to play forward. Multiple presses of the J or L keys increases the speed of rewind or forward.

Exporting Your Finished Project

This section briefly explores some of the export functions of CaptionMaker and MacCaption. It is important to note that not all versions of CaptionMaker and MacCaption have the same exporting capabilities. See [Comparing Software Versions](#) in this document for a side-by-side comparison of all the features at a glance.

Both CaptionMaker and MacCaption have a variety of export options, including formats for web and mobile video, DVD/Blu-ray, Web, broadcast video formats for SD, HD, UHD, 4K and so on. Depending on which version of the software you purchase, different features are available.

Exporting Standalone Caption Files

Many types of caption files are standalone, meaning the captions are in a separate file and not embedded into the video file. There are many different types of standalone caption files:

- For use on the web, such as Timed Text, WebVTT, and SRT (.srt) files. The type depends on the player being using on the web.
- Some are used in broadcast workflows, such as SCC (.scc) and MCC (.mcc). (SCC is also used for DVD closed captioning.)
- Some are used for working with an NLE system, such as Final Cut Pro, Avid, and Adobe Premiere Pro.
- Some are used for interchange with other captioners or captioning software, such as Cheetah, CAP, TDS, Ultech ULT, and so on.

Embedding Captions into Video

Captions embedded in video are typically used for broadcast video files such as ProRes, MPEG-2, and MXF. The captions are embedded directly into the video file instead of being saved to a separate file. CaptionMaker and MacCaption do not convert one type of video to another. This conversion is called transcoding and can be done in other Telestream software such as Vantage. If you want to output, for example, an MPEG-2 file with embedded captions, you must provide an MPEG-2 video file in the desired format, and then CaptionMaker and MacCaption can embed captions into it.

File-based Delivery for Broadcast TV

TV stations used to receive shows on tape, but most stations now use digital video files instead. Just as there were many different tape formats back in the day, such as BetaSP, DV, HDCAM, and so on, there are many different file formats that can be used for file-based delivery, such as QuickTime, MPEG-2, and MXF. Most formats support closed captions in one way or another, but each workflow is slightly different. It also depends on what the TV station is using to play back the file.

For example, many video servers installed at TV stations support playing back QuickTime video files, but this does not guarantee that they support the closed captions in QuickTime video files. Even if the captions seem to work on your end (such as playing them in QuickTime Player), this doesn't mean that the TV station can see the captions when played back on their server.

There are actually several different types of captions that can be inserted into QuickTime files. Your station might accept all of them (if they use Telestream Vantage, for example), or only some of them, or maybe even none of them. You might have to use a different type of video file other than QuickTime, such as MPEG-2 or MXF, to ensure that they can read the captions.

Get the TV Station Spec Sheet

It is best to ask your TV station for a “spec sheet” and confirm with its engineers that the format you're using works for them. Make sure the spec sheet mentions specific types of captions that they support. Saying “QuickTime File” or “MPEG-2 file” isn't always sufficient, because there are many different types of captions that can be inserted into QuickTime files and MPEG-2 files.

Get a Sample Captioned Video File

If the TV station can't provide you a spec sheet, ask them for a sample file that contains closed captions which work for them. You can then examine the file to determine what types of captions are known to work.

Use Switch to Perform a Test

It is always a good idea to send the station a short captioned sample video and ensure that they can read the captions from your sample before proceeding with the full delivery.

We recommend using Telestream Switch to check that your video has captions, before sending to the station. Get it at <http://www.telestream.net/switch/overview.htm>

Overview of TV Formats

Here is an overview of the types of captions that can be used for broadcast TV files:

- **Captions embedded into the video file:**
 - **Closed Captioning track.** An extra track of closed captions is added to the file. This is most often used with QuickTime files (QuickTime CC track) and MXF files (SMPTE 436m VANC track). However, not every server that can play QuickTime or MXF files is able to read this closed captioning track.
 - **User data captions.** Captions are added as metadata into the contents of the file. This is often used with MPEG-2 (ATSC DTV 608/708 captions), and occasionally with H.264 video (NAL SEI 608/708 captions), or DV video for standard definition (DV VAUX captions).
 - **Line 21 VBI.** This is used for standard definition video only. The VBI line 21 "Morse Code" dots-and-dashes are embedded into the top line of the video. The video resolution must be 720x486 for most QuickTime and AVI formats (rather than 720x480, which excludes the extra 6 lines of VBI where the captions go), or sometimes 720x512 for certain MPEG-2 formats.
- **Sidecar caption file - a standalone file containing just the captions:**
 - SCC files are commonly used, but they contain 608 (analog) captions only. Make sure the station has a system that can upconvert this data into CEA-708 digital captions, such as using Telestream Vantage.
 - MCC files are a next-generation improvement on SCC files, and contain native CEA-708 digital captions. They are supported by Adobe Premiere Pro CS5.5 and later, Blackmagic Hyperdeck, Manzanita muxers, Harris Nexio, and some other systems.
 - If the station uses Avid systems, they may want an Avid AAF caption track file.
 - Rarely, a station might ask you for a different type of caption interchange file, such as Cheetah.CAP, TDS, and so on.
 - If the video will be shown on the Internet, you may be asked to provide a web format caption file, such as SMPTE Timed Text (TTML), DFXP, WebVTT, and so on.

Next Steps for Delivery to the TV Station

Once you have confirmed with a TV station what kinds of video files they can accept with captions, you need to export that type. Keep in mind that MacCaption is not transcoding software - that is, it does not convert one type of video file into another.

If you're editing your video in NLE software, you may be able to export directly to the format you need (without captions), but not every NLE can export to every format. If you're starting with a QuickTime file and need to deliver a MPEG-2 file, you need to do some steps outside of the captioning software to create the MPEG-2 file first. Only then can MacCaption insert the captions into the MPEG-2 file.

For transcoding, we recommend Telestream Vantage software. Make sure you select the right bit rate and other specifications as required by the TV station.

Tape Delivery for Broadcast TV

Some TV stations still rely on tape formats for their receivables. MacCaption can be used together with your NLE system, such as Adobe Premiere, Avid, or Final Cut Pro, and a tape deck such as DV, BetaSP, or HDCAM to deliver a closed captioned video tape to the TV station.

Note that the following descriptions only apply when outputting to a tape deck via your capture card. These instructions do not apply when exporting a video file from your NLE system. For more information on file-based workflows for TV please refer to the previous section.

Adobe Premiere

Premiere versions CS 5.5 or later can use an MCC file to output HD digital captions via your capture card (such as AJA, Blackmagic, Matrox, and so on) to a tape deck, or a SCC file to output SD analog captions via your capture card or DV digital video via Firewire.

Avid Media Composer

Media Composer version 5 or later can use an Avid AAF file to output HD digital captions via your Mojo DX or Nitris DX hardware. For SD analog output, you can use the 720x486 line 21 overlay workflow.

Final Cut Pro

Final Cut Pro version 7 can use a QuickTime CC track to output HD digital or SD analog captions via your capture card such as AJA, Blackmagic, or Matrox, or DV via Firewire.

Other

Most other NLEs that output SD analog video can use the 720x486 line 21 overlay workflow.

For more information on tape based workflows and how to check your captions after outputting to tape, please refer to the Telestream knowledgebase via the support web page.

Subtitle Files

There are several ways you can export subtitles:

- **Burn-in.** This permanently combines the subtitles and the video. They can't be turned off, but you never have to worry about whether they will work or not.
- **Overlay for Later Burn-in.** If you're working with a video editor that wants to burn-in the subtitles, you can send them an overlay file. They put the overlay into their NLE system and render the burn-in video from there. That way, the captioner doesn't need the full resolution master video from the editor.
- **DVD/Blu-ray.** Several prosumer and professional software packages for authoring DVD and Blu-ray discs can accept subtitle files. In this case the viewer can turn the subtitle tracks on or off. The type of file to export depends on which authoring software is being used to author the DVD or Blu-ray.

Captioning for the Web and Mobile Devices

For web video, there are a number of different standards and types of video playback mechanisms: Flash, Silverlight, HTML5, QuickTime, HLS, HDS, MS Smooth Streaming, MPEG DASH, UltraViolet, and so on. To support a broad variety of different playback devices a provider may need to stream the video in multiple formats, because there is no single video format that is supported by every device. You may need to export the related captions into more than one of these formats.

Many mobile devices already support closed captions, although they require the captions in different formats depending on the device. With Telestream software it is easy to create captioned videos that work on multiple devices.

The iPhone and iPad are very common players for portable video and music media. The Apple devices support TV-style closed captioning in H.264 video files. Most Android-based phones which support Flash can display Flash closed captions.

For additional information on captioning for the web and mobile devices, see the Telestream Knowledge Base on the [Captioning Support page](#) of the Telestream web site.

Post-Production (VOD) Web Captioning

support a large number of formats for captioning video files for video on demand (VOD) on the web, including:

- SMPTE Timed Text (SMPTE 2052): A new standard for captioning for both broadcast and the web, also for UltraViolet (DECE CFF format).
- WebVTT: Another new standard for captioning and subtitling web videos, frequently used with HTML5 and Apple HLS streaming.
- H.264 SEI Embedded CEA-608/708 Captions: Used for Akamai and Wowza VOD streaming, and other systems that support embedded 608/708 captions inside the video stream.
- DFXP (TTML): Used by many Flash players and providers such as Brightcove, Lime-light, Flowplayer, JW Player, and so on.
- iTunes Timed Text (ITT): Used for delivery to iTunes.
- SRT: Supported by many Flash players and also YouTube, however this format does not carry any positioning or formatting information, just plain text and timing.
- SCC: Supported by YouTube and some other web video players.
- QuickTime Closed Captions Track: Apple devices and browsers can play closed caption tracks embedded into QuickTime MOV and MP4 files, which mimics the look and feel of TV broadcast captions

With the exception of QuickTime Closed Captions Track and H.264 SEI Embedded CEA-608/708 Captions, all of the other above formats are sidecar files, meaning the captions/subtitles are delivered as a separate file rather than being embedded into the video file.

DVD/Blu-ray

You need a DVD authoring system to author the DVD with closed captions and/or subtitles. Our software may be used in conjunction with a DVD authoring system to create the subtitle/caption files that your authoring system requires.

DVD Closed Captioning

For closed captioning a DVD, the file type used is a Scenarist.SCC closed captions file. Unfortunately, the Blu-ray specification does not support closed captioning. However, you can create an SDH subtitle track to mimic the look and feel of closed captioning.

DVD/Blu-ray Subtitle Formats

The subtitle file format depends on which DVD/Blu-ray authoring system you are using.

Subtitling

Unlike closed captions which have a fixed look and feel (white text on black opaque rectangle background, with a fixed font and size), subtitles allow you to use most fonts, colors, sizes, and formats. Subtitles also support more languages, because unlike captions, you aren't limited to the Roman alphabet and certain accented characters.

You can switch back and forth between caption and subtitle modes using Display > Display as Subtitles/Captions, or Command-D (for MacCaption) or using Subtitle menu and choosing a device such as Generic Subtitles (for CaptionMaker). A simple way to change modes is to use the Caption-Subtitle switch in CaptionMaker and MacCaption:



Different captioning workflows are supported by different versions of CaptionMaker and MacCaption. See the Telestream captioning support page for details.

Exporting Subtitles

There are several ways you can export subtitles:

- **Burn-in.** This permanently combines the subtitles and the video. They can't be turned off, but you never have to worry about whether they will work or not.
- **Overlay for Later Burn-in.** If you're working with a video editor that wants to burn-in the subtitles, you can send them an overlay file. They put the overlay into their NLE system and render the burn-in video from there. That way, the captioner doesn't need the full resolution master video from the editor.
- **DVD/Blu-ray.** Several prosumer and professional software packages for authoring DVD and Blu-ray discs can accept subtitle files. In this case the viewer can turn the subtitle tracks on or off. The type of file to export depends on which authoring software is being used to author the DVD or Blu-ray.

Playing or Converting Captioned Video Files

The Telestream software tools, Vantage and Switch, are great companions for providing the complete workflow of tools to create, edit, encode, and verify caption data in professional file formats for TV and the Internet. Telestream tools provide many caption encoding and transcoding features for various file types.

Telestream Vantage version 7.0 and newer, with the Timed Text Flip service, provides many caption encoding and transcoding features, including:

- MCC caption file support, including CEA-608 and CEA-708 caption data insertion.
- MXF caption data insertion for SMPTE 436M.
- MPEG-2 user data 608/708 insertion (A/53).
- Direct-convert caption data pass-through, such as MPEG-2 to MXF captions.
- Burn-in subtitle overlays.
- DVB Subtitling.

For a complete list of caption and subtitling features of Vantage Timed Text Flip, please visit <http://www.telestream.net/vantage/TimedText.htm>

Note: do not convert, or transcode, one type of input media file to a different type of output media file. However, they can convert caption/subtitle files to many different types. Telestream Vantage is a great tool to convert one media file type to one or more other media file types.

Switch decodes and plays many types of caption and subtitle files, such as Internet WebVTT, iTT, and TTML; MXF and MPEG-2; SCC, MOV, DV, DVB, LXF, GXF, SMPTE-TT, SRT, EBU-STL and more.

Note: Common video players such as VLC, Windows Media Player, QuickTime Player, Sony XDCAM Viewer, and so on, do NOT display most types of closed captions. So even if your video will play in one of these players, it may not show the captions.

For more information and additional features of Vantage and Switch, go to [Telestream.net](http://www.telestream.net).