

# Computer Aided Realtime Translation

Computer-Aided  
Realtime Translation

New Jersey  
Department of Human Services  
Division of the Deaf and Hard of Hearing

**CART** means “computer-aided realtime translation” services. This service is provided by a trained individual called a realtime or court reporter, who operates a stenotype machine which is linked to a computer. The reporter types as words are spoken and the text appears on a computer monitor, television, or projection screen. This enables people who do not hear well to read everything that is said.

## **WHO uses CART?**

People who are deaf, hard of hearing, or late-deafened are the most frequent users. Sometimes, a person who is deaf-blind can see the print on the monitor if the print is enlarged and back lighted. Many people who are deaf may rely on sign language interpreters. People who are hard of hearing may also utilize Assistive Listening Devices to amplify sound. People who lost their hearing after acquiring spoken language or were raised orally may not know or be fluent in sign language and, therefore, need CART services.

## **WHERE is CART used?**

CART can be used in the court system by jurors, plaintiffs, defendants, lawyers and other involved parties. It is also used in conferences, conventions, meetings, schools, and a variety of other settings which need to be communicatively accessible to people with hearing loss.

## **Must CART be provided as per the Americans With Disabilities Act?**

The ADA does include CART in its definition of “auxiliary aid.” Consequently, one has the same rights to CART as they would to a sign language interpreter or Assistive Listening Device. However, the provider may select which auxiliary aid they employ as long as it ensures “effective communication” as determined by the recipient of the service.

## **Glossary of Terms**

**Off-Line captioning:** This is captioning that is produced after a video segment has been recorded. A captioner watches the video recording and creates captions, paying attention to the timing and screen placement of each caption. The captions are then recorded on a videotape with the

program’s picture and sound before the program is broadcast or distributed. Most captioned programming is produced off-line.

**Realtime captioning:** These are captions which are simultaneously created and

transmitted during a video program or conference. A trained stenotypist, acting in much the same way as a courtroom reporter, enters the spoken content by typing phonetic codes on a special keyboard that permits high-speed transcription. A computer, using custom software, then very quickly translates the phonetic codes into proper text. In order to display the words as quickly as possible after they are spoken, most real-time captioning is shown in a scrolling style.

**Closed captions:** These are captions that appear only when special equipment called a “decoder” is used. Closed captioning is typically used for broadcast television and for videocassettes of movies which are widely distributed. Closed captioning allows caption users (people who are deaf and hard of hearing) to enjoy the same broadcast and pre-recorded video materials that other television viewers enjoy.

**Open captions:** These are captions that are visible without using a decoder. When a video is open captioned, the captions are permanently part of the picture. Open captions are advised for any situation where a decoder may be difficult to obtain or operate (for example, in a hotel, convention center, or museum). For this reason, open captioning is recommended for training and promotional videos.

**Closed caption decoder:** This is equipment that decodes the captioning signal so that captions appear on the screen. In the 1980s and early 1990s, closed caption decoders were separate appliances connected to the television set, VCR, and/or cable converter box. After July 1, 1993, all television receivers with screens 13” or larger that were manufactured for sale in the United States, must have built-in closed caption decoders, and the additional appliance will not be needed for these sets.

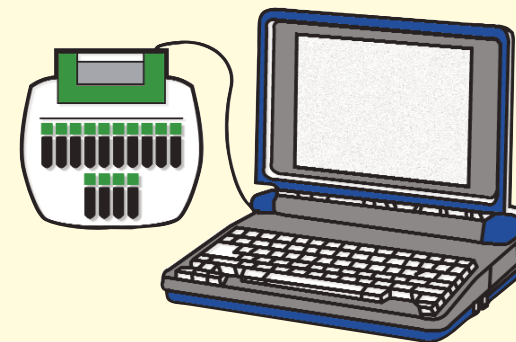
**Roll-up and Pop-on captions:** These are the two main styles in which captions may appear. Roll-up captions scroll onto and off the screen in a continuous motion. Pop-on captions do not scroll; the words display and erase entirely together. Pop-on captions are used for most off-line captioning. Roll-up captions are used for most real-time captioning.

**Consumer Tips:** In selecting a CART reporter for an assignment, you should confirm the individual’s credentials and experience. For instance, there is a national certification called CRR (Certified Realtime Reporter). You should inquire as to the person’s prior assignments, experience and technological equipment.

**For additional information and how to obtain CART services contact:**

**Division of the Deaf and Hard of Hearing**

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Glossary provided by National Information Center on Deafness, Gallaudet University, Washington, D.C.

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