CCaption: An Easy Way of Adding Closed Captions to Video

**Abstract:** Closed captioning technology allows the 10 percent of the population with hearing disabilities to enjoy television. But closed captioning is not just for the hearing impaired, it is also used in school systems to teach foreign languages and to help elementary students learn to read. Many strides have been made to insure the technology is as widely distributed as possible. CCaption is one of the best closed captioning products. It allows non-experts to easily add closed captions to video material, saving a huge amount of time and money. During the interactive session, we will introduce this software to the audience, show the audience how to add closed captions to an existing video tape and to demonstrate the process of adding closed captions to a QuickTime movie.

**Background**

An image is said to worth ten thousand words. As an effective instructional tool, video has been widely used in classrooms and distance education for many years. Visual cues amplify and explain text, images and facilitate recall of new knowledge (Mayer & Gallini 1990). Goodyear and Steeples (1998) also pointed out that video can provide vivid descriptions to articulate tacit information and knowledge difficult to articulate through text and verbally. However, videos without close captions are not accessible to 10 percent of the population with hearing disabilities. Close captioning will not only benefit the hearing impaired, but also help students learn foreign languages. It plays an important role in school systems.

Until recently, those needing to close caption their programs either had to purchase expensive hardware and software to encode closed captioning, or to send every program out for closed captioning at a service bureau. The latter option can involve considerable time and expense. Off-line captioning of a half-hour show can take upward of nine hours to complete. The cost usually ranges from $800 to $1,200 per finished hour of programming, depending on content. This is way beyond most schools’ budgets.

**Introduction of software**

CCaption is the software from Leapfrog Productions. It is used to generate closed-captions, Interactive TV links, QuickTime Text, RealVideo Captions and Open Captions for digital media. This software allows anyone editing video with a computer and FireWire to add closed-captions to video material. Unlike other closed-captioning techniques, CCaption requires no additional hardware or software to physically produce closed-captioned video. CCaption-DV works with the following video editing software: Apple Final Cut Pro, iMovie, and Adobe Premiere.

CCaption can be installed in both Macintosh and PCs. It uses an editor with a grid of 15 rows by 32 columns. After a user enters the data and tells the software whether he wants
the text to pop or scroll onto the screen, the software generates a QuickTime file that contains the codes necessary to drive the closed-caption decoder.

**Hardware requirements**

Operating System requirements:
Macintosh OS 7.0, QuickTime 4.0, 16 MB of application RAM
Windows 98/2000/NT, QuickTime 4.0, 16 MB of application RAM

The following VCRs and Video Cameras can be used with CCaption to put DV closed-captions onto analog video:
Panasonic AJ-D650
SONY DHR-1000
SONY DSR-11, DSR-20, DSR-30, DSR-40, DSR-80
SONY GV-D300 portable
SONY DCR-TRV110, TRV720, TRV820 Digital8 camcorder
SONY DVMC-DA1 and DVMC-DA2 Media Converter

**Objectives of the session**

1. To promote the importance of closed captioning in educational videos.
2. To introduce to the audience how they can add closed captioning to existing videotapes.
3. To demonstrate the process of adding text to a QuickTime movie.

**Intended audience**

This interactive session is not restricted for experts on video technology. Anyone who is interested in the use of video in education is welcome.

**Reference**
