Closed Captioning for South Korean Broadcast TV

Closed captioning products MacCaption and CaptionMaker allow you to easily author, edit, encode and repurpose video captions for television, web and mobile delivery. Utilizing exclusive e-Captioning™ technology, MacCaption (for Mac) and CaptionMaker (for Windows) simplify the process of complying with FCC regulatory requirements, enabling greater access to broadcast content for television, online and mobile viewers.

Introduction

South Korea uses the ATSC TV transmission standard, which is the same transmission signal as used by the United States, Canada, and Mexico. However, closed captioning (CC) an HD signal in South Korea requires special encoding that is very different from the typical captioning system available in the United States. South Korean VANC data is encoded using a standard very close to the CEA-708 standard used in North America, but with a different character encoding called KS C 5601.

File Based Encoding of Korean Captioning

Adding HD captioning data to video file formats is not new. However, being able to add Korean captioning data with existing CC compatible hardware and software is new. The following files and hardware that are used for North American closed captioning now will support the South Korean HD captioning:

- MXF XDCAM HD SMPTE 436M
- MPEG-2 Program or Transport Stream
- QuickTime 608/708 for Final Cut Pro 7 and AJA VTR Exchange
- Avid AAF for Media Composer 5 and above
- Matrox 4VANC with Mac based Matrox MXO2 play-out
- .MCC for Adobe CS6/Harris Nexio/Blackmagic Hyperdeck
- More may be coming

How to Monitor Korean Captioning

To be able to check Korean captioning for sync and accuracy, a professional monitor that has a Korean closed captioning decoder built-in must be used. TV Logic Model LVM-173W3G is the only monitor we know of that has the proper decoder capabilities for CEA-708 KS C 5601 captioning.

Delivering Korean Captioning to TV and the Web

Extracting the VANC data line from live broadcast feeds to create caption file types for the web will work for Korean broadcasters in the same manner as in the U.S. Therefore data captioning files can be easily repurposed for internet video file delivery. This requires a system that understands the Korean CEA-708 KS C 5601 caption encoding to convert the broadcast TV captions into a web format like SMPTE Timed Text, DFXP, or WebVTT.