



EiTV **Closed Caption** Solution

The Closed Caption Solution from EiTV has been designed so that broadcasters can produce the content to transmit this hidden captions thru the TV signal.

EiTV Closed Caption Solution is basically composed of 3 parts:

1. Software for generating text

For text generation, EiTV provides alternative for automatic recognition of audio online for live programs, automatic recognition of audio offline for recorded programs and re-speaking option, which is used a voice recognition system with a speaker listening to the audio and repeating the same.

Main Features:

- ▾ Direct subtitling;
- ▾ Real time voice recognition system;
- ▾ Anchors and journalist high level performance;
- ▾ Speaker's voice changes indication;

What it is for

System software consists of several modules that can be used along with:

- ▾ Real time direct recognition for TV programs and subtitle generation;
- ▾ Recorded material subtitle;
- ▾ Sports programs and entertainment re-speaking;

Whom it is for

- ▾ TV stations;
- ▾ Legislative channels;
- ▾ Corporate TV;

2. EiTV CC Studio Software – Integrates different sources of closed caption and subtitle generation

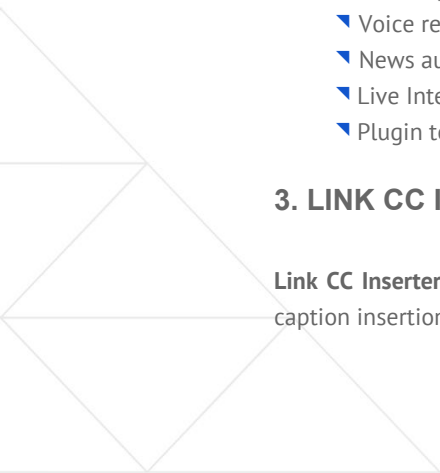
EiTV CCStudio is a Java developed software with the goal of being an integrator between the closed caption sources. It has a simple API that allows the connection with any text generator.

There are the following options for data input:

- ▾ PC 112 keyboard;
- ▾ Flowing text;
- ▾ Srt file (with timecode);
- ▾ Voice recognition system;
- ▾ News automation system feed;
- ▾ Live Interface;
- ▾ Plugin to others systems integration;

3. LINK CC Inserter for Video Closed Caption Insertion

Link CC Inserter under the CEA-608/708 standards for SDI (SD and HD) is the equipment that make the caption insertion in the video for closed caption transmission in analog and digital networks.



The solution provides different ways of operation such as:

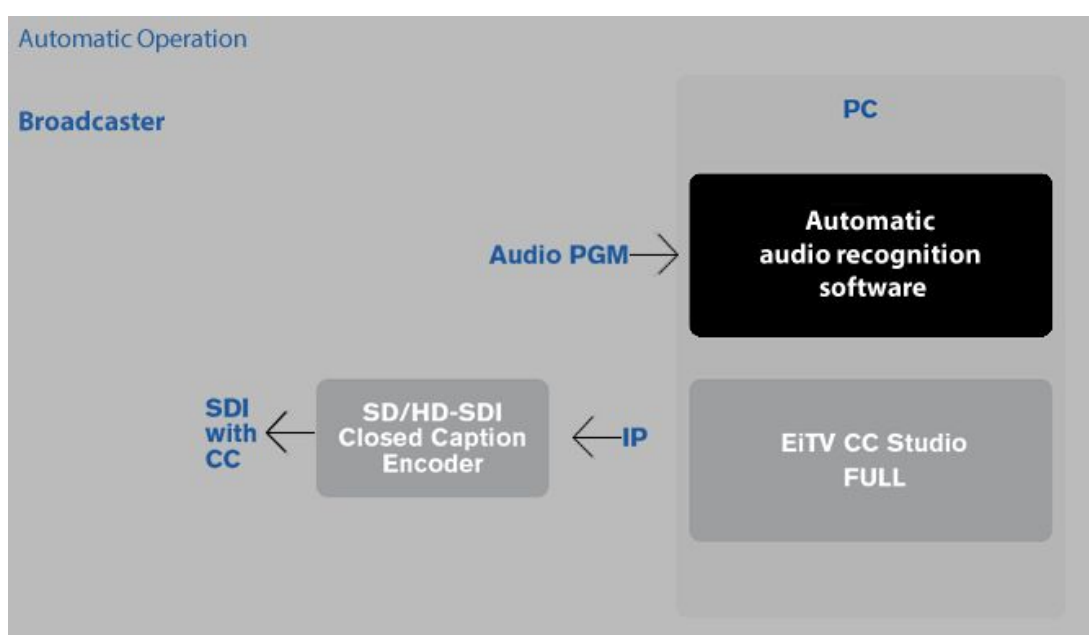
- ▾ Automatic operation;
- ▾ Basic operation;
- ▾ Full operation;
- ▾ Generation Service;

AUTOMATIC OPERATION

Regarding the automatic operation, the solution is guided by automated products which consists of the following items:

- ▾ Automatic audio recognition software;
- ▾ EiTV CC Studio software;
- ▾ Closed Caption Inserter (Closed Caption Encoder);

From the PGM audio output, automatic audio recognition software transcribes this audio to text and sends it to the EiTV CC Studio software. EiTV CC Studio software converts and transmits the text using a specific communication protocol to Closed Caption Inserter and this provides the data insertion in the SD / HD-SDI video.

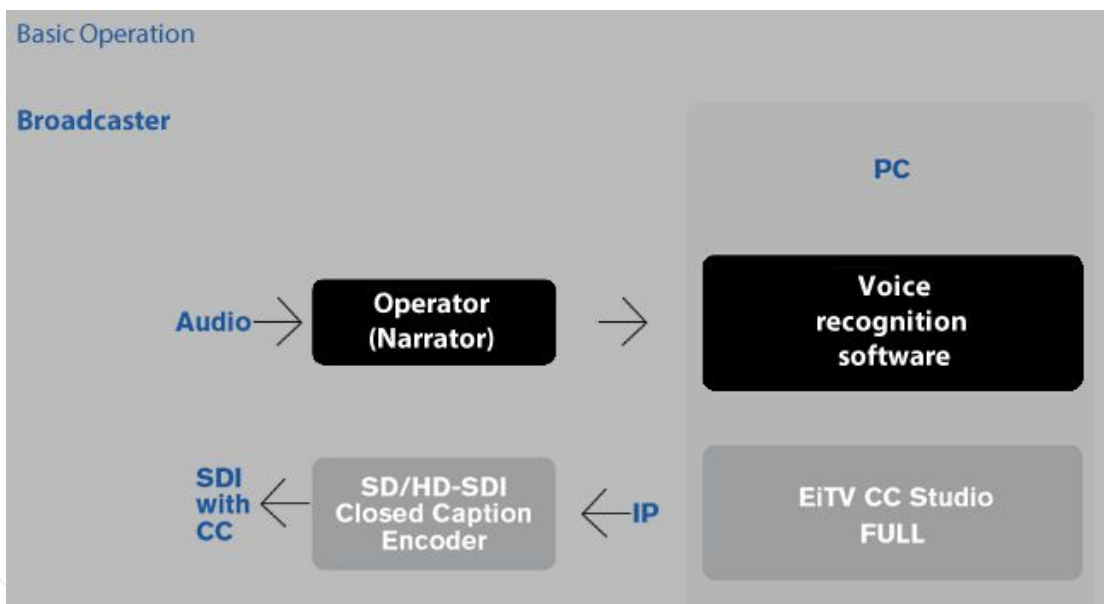


BASIC OPERATION

In order to complement the automatic operation, EiTV provides the solution with the use of narrators (speakers). In this scenario, the solution consists of the following:

- ▾ Narrator operator (speaker);
- ▾ Voice recognition software;
- ▾ EiTV CC Studio software;
- ▾ Closed Caption Inserter (Closed Caption Encoder);

La diferencia de esta operación en relación a la operación automática es que el operador narrador (Locutor) escucha el audio en tiempo real y repite (re-speaking). El audio repetido por el narrador es enviado para el software de Reconocimiento de Voz, que hace la transcripción del contenido y envía para el software EiTV CC Studio. El software EiTV CC Studio entrega el contenido para el Encoder de Closed Caption y este hace la inserción de los datos en el vídeo SD/HD-SDI.

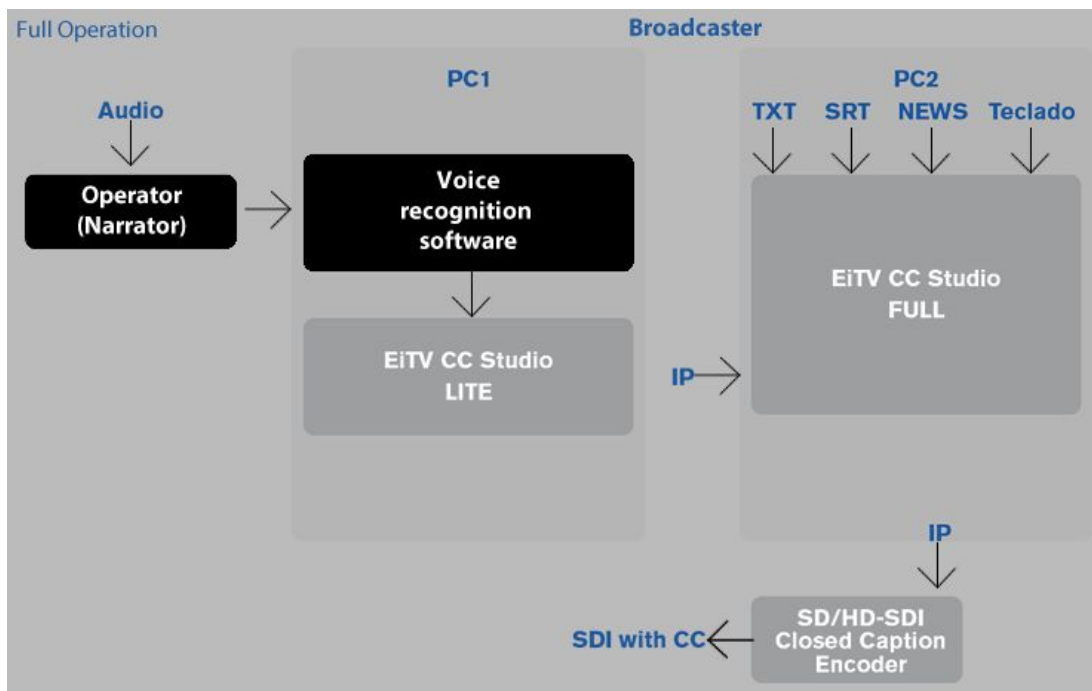


FULL OPERATION

Full Operation is also a complementary resources to Automatic Operation. In this scenario, the solution consists of the following:

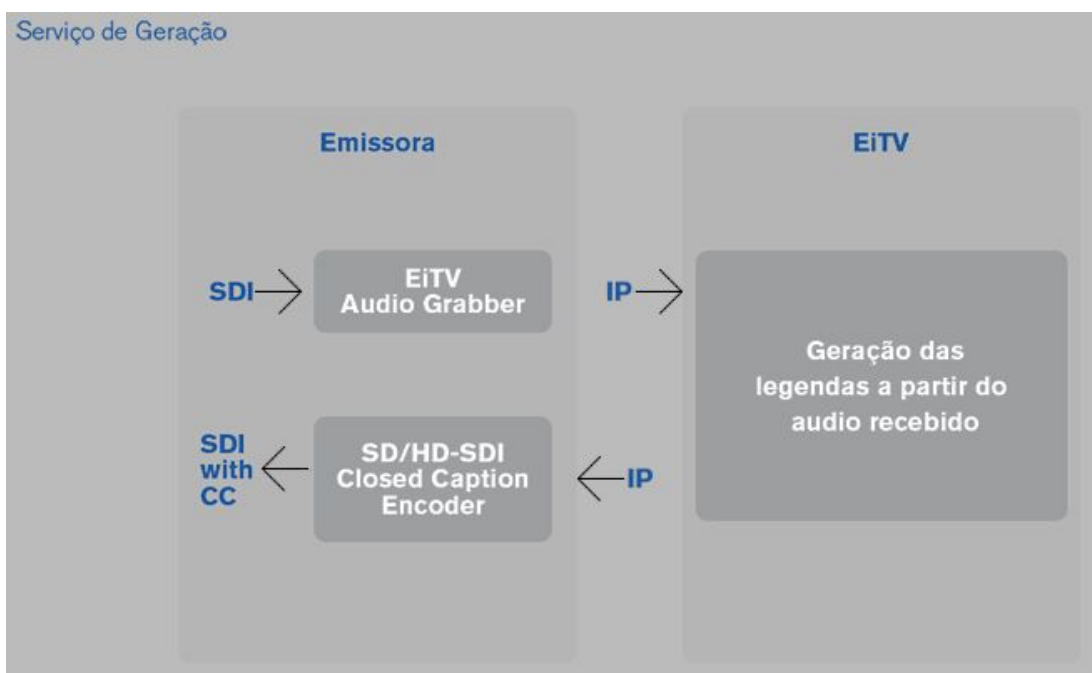
- ▾ Narrator Operator (Speaker);
- ▾ Voice recognition software;
- ▾ EITV CC Studio – LITE software;
- ▾ Validator Operator;
- ▾ EITV CC Studio – FULL software;
- ▾ Closed Caption Inserter (Closed Caption Encoder);

The content narrated by the speaker is sent to the voice recognition software which provides transcription from the audio content to text and sends it to the first station set with EITV CC Studio – LITE software version. The EITV CC Studio – LITE processes and sends the content to a second station set with EITV CC Studio – FULL software version. In this second station the validator operator verifies and corrects the content on EITV CC Studio – FULL that converts and transmits the data using a specific communication protocol to Closed Caption Inserter which provides the insertion in the SD / HD-SDI video.



LIVE CLOSED CAPTION GENERATION PROVISION SERVICE

EiTV has the complete solution to generate and insert the closed caption and also has the Live Closed Caption Service. This service is made by very well capable professionals. The person designed to do the job will create the caption based on the audio that is been going out in the live program. The spoken audio is written on a specific voice recognition system and sent thru IP or Ethernet to the EiTV CC Studio. This software codifies for the CEA-608 protocol and communicates with the encoder (serial or IP) to insert this text on the broadcasted video.



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