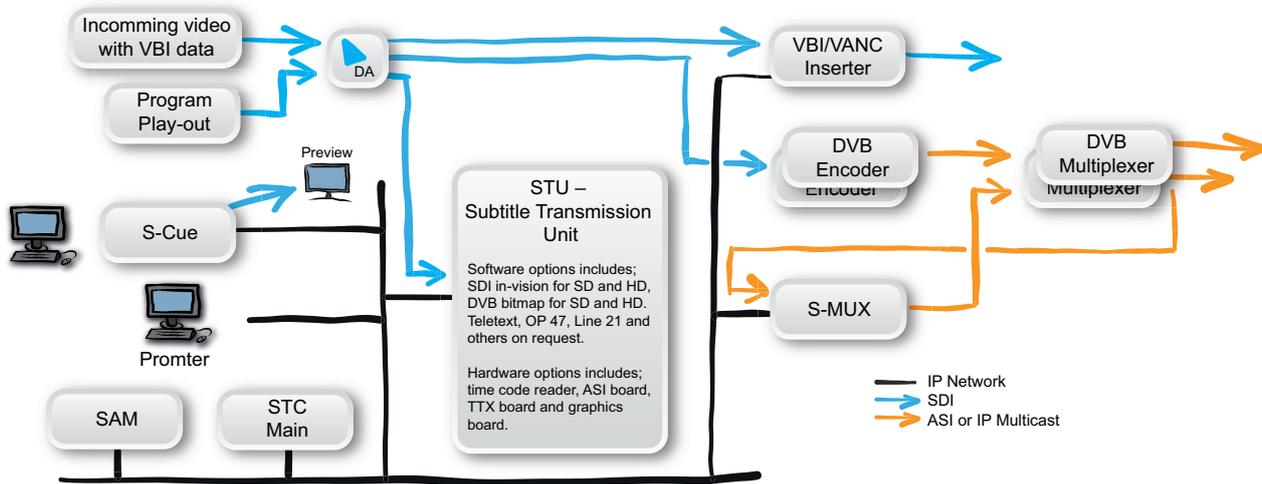


Subtitle Transmission Unit, STU



STU centric description of play out network

STU, Subtitle Transmission Unit, is a subtitle encoder and renderer. STU can be used as stand-alone for offline encoding or as part of a playout system where a Subtitle Transmission Controller, STC control STU.

STU is based on a Windows software platform for play out of subtitles in various transmission formats. It is designed for use in an automated playout environment, and can also be controlled by an operator at any time. One STC can control up to 24 STU units, with automatic fail-over to extra STUs on the network, no configuration or wiring needed (except for specific serial and ASI interfaces).

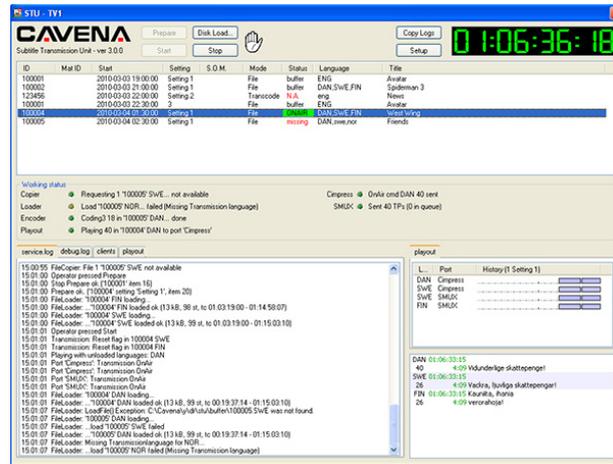
STU supports a number of output formats, including but not limited to;

- HD/SD in vision
- DVB Subtitling via ASI, IP or other interfaces
- Teletext
- OP47
- Line 21
- Proprietary formats
- More output formats added continuously

STU uses timecode to control play out of subtitles. STU handles all subtitle streams required on one TV channel. It receives playlists from the Subtitle Transmission Control, STC and automatically copies subtitle files to its local hard disk days ahead of transmission. Transmission of subtitles can be configured per language and port; thus each language can be sent to any number of transmission ports. All font rendering and conversion to transmission protocols takes place at transmission time. Smart prediction algorithms ensure that frame accuracy.

Flexible configuration

Setup control can be per port, language and event. Multiple setups can be used simultaneously, even for the same language on the same port, for example, to use 4:3 and 16:9 DVB subtitles in the same transmission. There is no need to create individual subtitle files for different transmission formats, setups or even overrides per event. Pre-transmission of subtitles to compensate for external system delay can be controlled individually per port. STU also supports subtitle transmission bridging, for example reading a subtitle stream from another STU, or Teletext or Line-21 from existing feed, for re-transmission into same and/or other formats on-the-fly. >>



STU graphical interface

STU transcodes subtitles

SSTU can also transcode subtitles from one text-based format to any transmission format, for example, Teletext to DVB, Line 21 to Teletext, etc. STU can switch between transcode events and file-based events using timecode. It can be done either from playlist events or priority when an incoming signal is detected. STU can also accept live subtitling feeds, typically from a hard-of-hearing feed from a live typing workstation. For any transcoding of subtitles, STU can also record the subtitle feeds to file for future use as a file-based event, using either clock or time code as

a reference. It is useful when you have a live event with live texts produced and want the rerun to be automatically transmitted with the same subtitles. The recorded files are stored in the SAM archive and scheduled and played out as ordinary file events.

System requirements

STU runs on Windows Server or Cloud Services. Hardware options have separate requirements. Contact Cavena for more details.