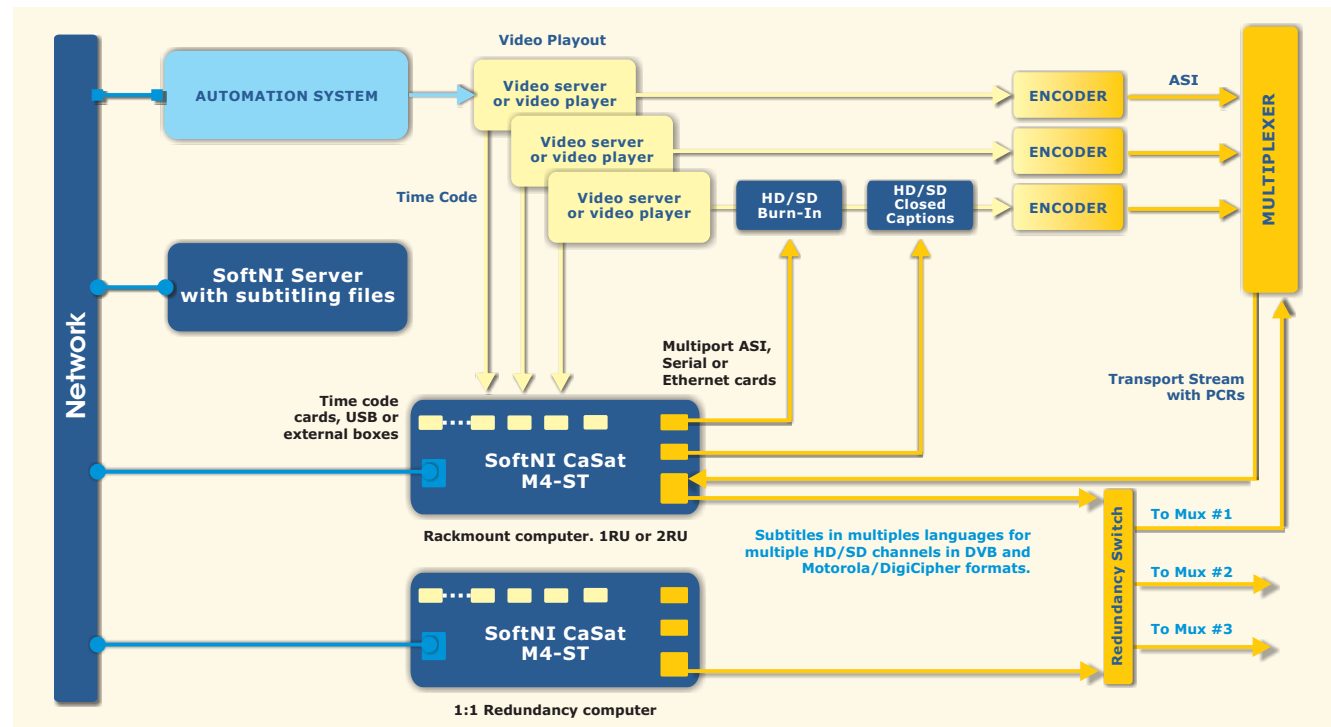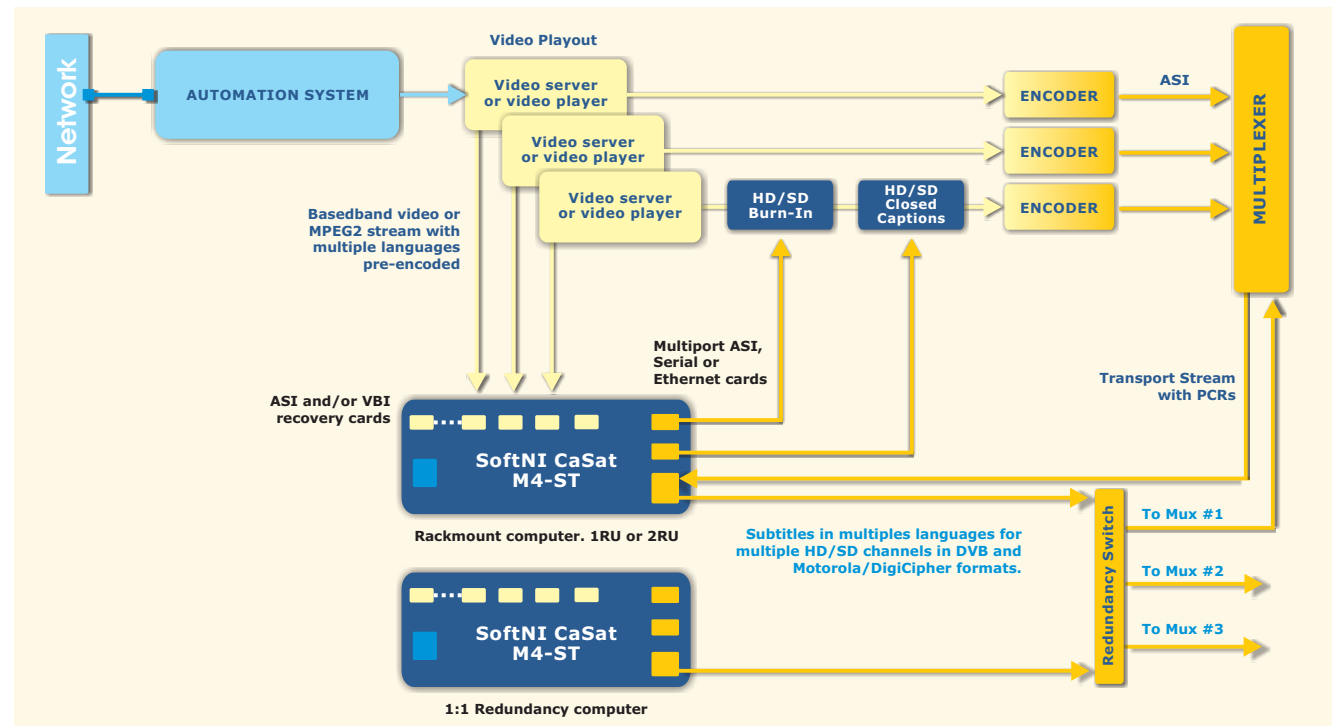# SoftNI CaSat M4-ST
HD & SD Subtitle Transmission System

Automation Option. Subtitling files stored in a server. Controlled by automation system. Synchronized by time code.

Pre-encoded Option. Subtitle data pre-embedded in HD/SD digital files. No automation or TC needed

SoftNI Corporation is the leading worldwide developer of subtitling & closed captioning solutions for the entertainment industry. SoftNI's founder, José M. Salgado, has pioneered many important innovations in the field: a comprehensive set of rules for proper subtitle design based on groundbreaking research (1980), the first PC-based subtitling system (1986); the first solution for DVD subtitling (NAB 1997); the first subtitle preparation system with MPEG/WM9 video player, interactive graphic timeline, and audio wave display (NAB 1998); the first subtitling system for NLEs (NAB 2000); the first open-architecture, software-based multi-channel DVB subtitling transmission system (2001), the first only-software HD-VANC/SD-VBI data encoder for digital files (2004), the first multi-purpose, multi-language, multi-channel, multi-standard, multi-platform subtitle transmission system (2008). SoftNI's continuos development efforts have kept these products at the forefront.

SoftNI CaSat Suite™

The Most Advanced HD & SD Subtitle Transmission System for DVB, ATSC, DigiCipher, DirecTV, IPTV…

Selected by A&E, Cinemax, DirecTV, DLA, FOX, E!, HBO, MTV, SKY, Sony/SPE, Televisa, TV Globo, Warner/GDMX and many other leading broadcasters and post-production facilities worldwide!

The CaSat Suite Difference

SoftNI CASAT Suite™ is a modular, multi-channel, multi-standard, multi-platform subtitling solution for multi-language terrestrial, cable and satellite transmissions, providing highest-quality, highly-readable subtitles in most European, Asian, African, and Middle Eastern languages.

SoftNI CaSat modules are open-architecture, software-based, and compatible with most established video servers, Mux, encoders, IRDs and set-top-boxes. All software modules run on off-the-shelve professional computers under Windows XP.

This flexible non-proprietary approach provides the best hardware quality and value, fastest and most economical technical support, easiest upgrades and lowest cost of operation.

Key Advantages

Reliable
- Very reliable software used by major broadcasters since 1996.
- Requires minimal hardware, minimizing potential failures.
- Virtually 100% reliability with optional 1:1 full redundancy.

Powerful
- Multi-Channel, Multi-Mux. Can transmit simultaneously dozens of channels/services to one or multiple Mux.
- Multi-Standard. Multi-Platform. Transmits simultaneously to DVB, DigiCipher, and DirecTV standards, and to HD and SD character generators, closed captions and Teletext encoders.
- Multi-Language. Supports most Unicode based languages.

Versatile
- All software based, modular.
- Very easy to optimize configuration, upgrade and expand.
- Customizable to enable new client functionality.

Compatible
- Hardware. Works with most popular video servers, Mux, encoders, IRDs and STBs for digital transmissions, such as Harmonic, Irdeto, Pace, Motorola, Phillips, Scientific Atlanta, SeaChange, Tandberg, Thomson, and many others.
- Files. Imports ASCII, ANSI, and Unicode scripts and subtitling files from virtually any subtitle preparation system.
- Automation. Logical, simple, command-driven interface for automation systems.

Lowest Cost
- Very low cost software expansion for additional channels.
- No proprietary, expensive hardware. Works with most professional off-the-shelve rack-mount computers and ASI and serial cards.
- No costly specialized technical support needed.
- Straightforward low cost operation and maintenance.

Highest Subtitle Quality
- High resolution anti-aliased bitmap subtitles based on SoftNI's unique proprietary subtitle quality standards.
- Frame accurate synchronization of subtitles with dialogs.

Complete Operational Control
- A complete Monitoring system to instantaneously report subtitle display at uplink or downlink.
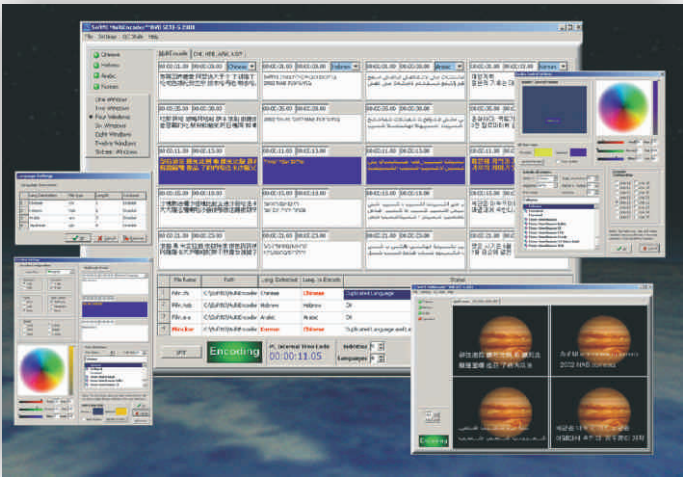
SoftNI CaSat MultiEncoder™. HD & SD

Simultaneously encodes multiple subtitling files in multiple languages and multiple standards into the VANC (vertical ancilliary data) and the VBI (vertical blanking interval).

SoftNI CaSat MultiEncoder™ allows you to encode subtitle data in multiple languages into the VANC and VBI. The encoding process is synchronized by time code and can be done off-line or on-line.

A built-in QC module (IRD-STB Simulator) displays the subtitles, in multiple languages, as they will appear to the viewer, allowing operators to perform a comprehensive quality control of all the different languages.

This pre-encoding process into the video to be broadcast ensures the integrity of the subtitles and their precise, dependable, permanent synchronization with the video.

During transmission, the subtitle data is retrieved from the VANC or VBI, transcoded and transmitted in the desired standard(s): DVB, ATSC, 708/608 closed captions, Teletext, open subtitles, and proprietary formats for DirecTV and Motorola's DigiCipher II.

SoftNI CaSat MultiEncoder supports Unicode and most European, Asian, African and Middle Eastern languages.

SoftNI IRD-STB Simulator™. HD & SD

Specialized software module for simultaneous quality control of multiple subtitling files or multiple subtitles pre-encoded in ready-to-air masters.

SoftNI IRD-STB Simulator™ allows you to preview and quality-check:

Pre-encoded subtitles.
Recovering subtitle data in multiple languages previously encoded or being encoded into the VBI of the video or into MPEG-2 streams.

Subtitling files.
Stand-alone subtitling files before the encoding process or files that will be sent directly to the satellite encoder via play-list or automation systems.

SoftNI IRD-STB Simulator™ supports Unicode and can be customized to display the subtitles over the video exactly as they will appear on IRDs, set-top boxes, or closed caption or Teletext decoders at viewers' homes.

SoftNI IRD-STB Simulator™ also lets you create subtitled videotape copies for quality confirmation or demo purposes.

SoftNI CaSat M4-ST. HD & SD

Transmits in real time bitmap or text based subtitling and closed captioning files in dozens of languages and multiple standards simultaneously to multiple channels from a single computer!

SoftNI CaSat M4-ST is a powerful multipurpose, multi-language, multi-channel, multi-standard, multi-platform subtitling system designed to generate and transmit high-quality, highly-readable subtitles for cable/satellite/terrestrial broadcasts. Subtitles can be transmitted simultaneously via ASI, Ethernet, and serial interface.

Operation Modes

Automation Control. The subtitling files, stored in a file server, are triggered by commands from the automation system and are synchronized with the video via time code.

Pre-encode. Subtitles are encoded off-line into digital files using SoftNI's Digital Subtitling Suite or into the VBI using SoftNI's CaSat MultiEncoder. During transmission the subtitles are recovered, transcoded, and transmitted to the desired standard(s). This ensures perfect synchronization of the subtitles. It is not necessary to interface with file servers, automation systems, playlists, or be connected to a time code reference!

Compatibility

SoftNI CaSat M4-ST is compatible with video encoders, Mux, IRDs and set-top boxes that comply with DVB, Motorola DigiCipher®, and DirecTV® standards in HD and SD.

The CaSat M4-ST is also compatible with most HD/SD character generators, professional video cards, and closed caption and Teletext encoders. N:1 and 1:1 redundancy are available.

> **Transmit highest-quality subtitles and closed captions in multiple languages simultaneously to dozens of channels from one single computer!**

SoftNI Multi-File Converter™

Converts virtually any preexisting subtitling and closed captioning files, and cinema scripts into EBU (.STL) standard or SoftNI (.SUB) file formats.
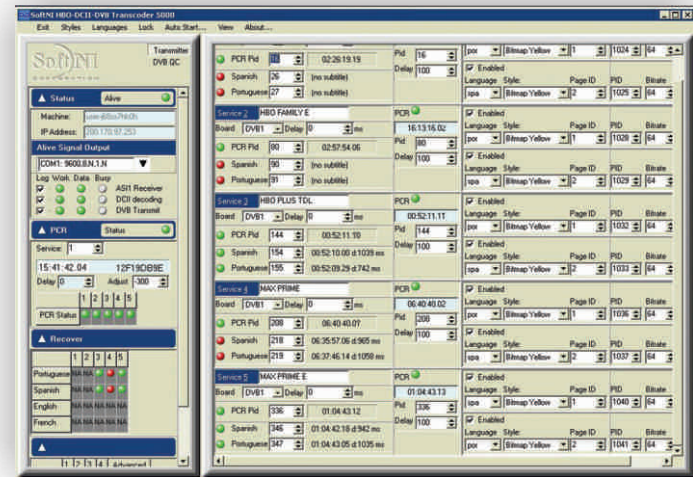
Powerful application that converts existing electronic dialog scripts, text translations, subtitling and closed captioning/Teletext files from the most widely used file formats to EBU (.STL) European standard files and to SoftNI subtitling files (.SUB) for use in all kinds of subtitling applications and cable/satellite transmissions.

This allows your CaSat Suite™ equipped facility to use existing subtitling files and to receive new files in virtually any format, prolonging the useful life of other subtitle preparation systems.

SoftNI CaSat MultiTranscoder™. HD & SD

Transcodes and/or re-times single or multiple incoming subtitle data streams simultaneously from/to various standards for cable, satellite, terrestrial transmissions.

SoftNI CaSat MultiTranscoder™ is a new specialized system to recover, transcode, and retransmit subtitles from/to different standards: DVB, Motorola DigiCipher®, DirecTV®, HD Vanc data, closed captions and Teletext. Subtitles can be recovered and burnt into the video signals. The incoming subtitle data can be delayed to compensate for delays in the retransmission systems.

This allows broadcasters and cable companies to rebroadcast incoming TV channels that carry subtitle information.

SoftNI CaSat MultiTranscoder™ can transcode subtitling and closed captioning data from dozens of channels simultaneously, via ASI or serial port, from a single computer!

SoftNI CaSat Monitor™

Monitoring and warning system to detect if subtitles are being properly transmitted and received.

SoftNI CaSat Monitor™ compares the subtitle data transmitted at the uplink with the data received from the downlink and warns you if the subtitle data is missing, corrupted, from a different standard, or if the subtitles are not synchronized properly.

Warning messages can be displayed in a dedicated workstation and/or sent to a network warning system. SoftNI CaSat Monitor™ may also display the subtitles over the video in multiple windows and languages for easy visual quality control.