SysMedia

WinCAPS

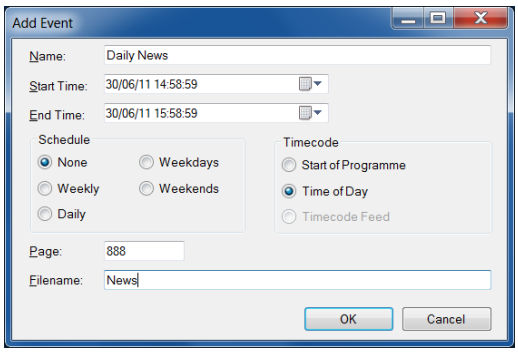
Interactive TV • Subtitling • Teletext

SDC - Subtitle Decoding and Storage

Capturing transmitted subtitles into a regular timed subtitle file, can allow broadcasters and subtitling facilities to re-use those subtitles - saving time and effort. This may be particularly useful for live or near-live programmes with real-time subtitles that are subsequently repeated in full or edited form or where the only existing subtitles are archived in the VBI on a tape.

SysMedia's SDC subtitle data capture software can decode teletext subtitles from a network or serial inserter protocol (such as Newfor) or from a composite video input (via suitable hardware). The process can be controlled manually, using a schedule or via automation.

Subtitles are stored in a standard EBU STL file containing all the text, position and colour data with associated timing (derived from the internal clock or, subject to suitable hardware, an external timecode source). One file is created for each event and for each separate monitored page/language.



- **AVOID RE-WORKING – re-use live subtitles on repeats and delayed transmissions**
- **IMPROVE QUALITY – quickly correct text and adjust timing if desired**
- **SAVE TIME – use edited live subtitles for recorded segments**

Scroll to Block Conversion

Scrolled subtitles are buffered to compile a one or two row block equivalent as well as in the original word-by-word form. The resultant block STL file removes the repeat content inherent in teletext scroll subtitles and is therefore far easier to work with if any subsequent editing is necessary

For instance: "Good evening, here is the news." is transmitted as:

```
Good
Good evening,
Good evening, here
Good evening, here is
Good evening, here is the
Good evening, here is the news.
```

This is stored in the block STL file as:

```
Good evening, here is the news.
```

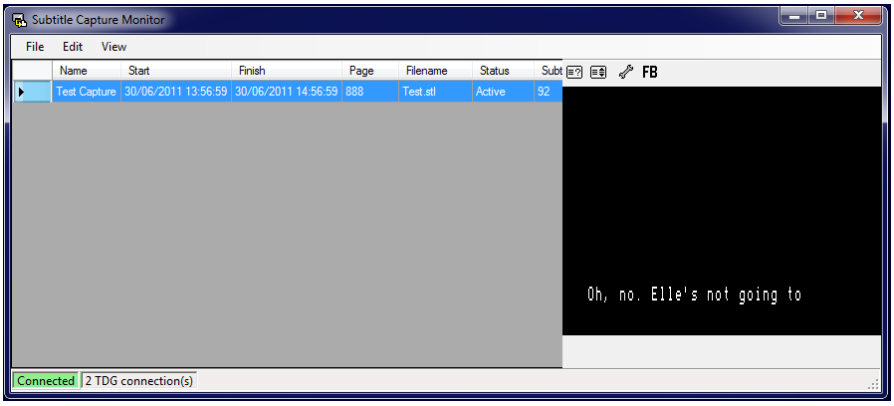
The timing for this block version is based on the start of each scrolled row so that when replayed in block mode there is only a minimum delay – more comparable to normal practice for a recorded programme.

SDC fits easily into any existing subtitling operation without changing existing subtitle authoring or transmission processes. The software supports various serial and IP teletext subtitle inserter protocols and can also include a relay function if needed. For composite video input the software is pre-installed on a 1U rack-mount PC with a VBI capture card and optional timecode reader card to provide a complete packaged unit.

Alongside the list of scheduled events a monitor window displays with each decoded subtitle as confirmation. The data is written incrementally to an STL file, allowing other software to make use of the incomplete file even before the programme in question has finished.

The resulting STL subtitle files retain the textual, colour, positioning and timing characteristics of the source. Any subtitle preparation software, such as SysMedia's WinCAPS can be used to make any amendments to the STL file that may be needed (e.g. error corrections, timing adjustments, edited programme repeats).

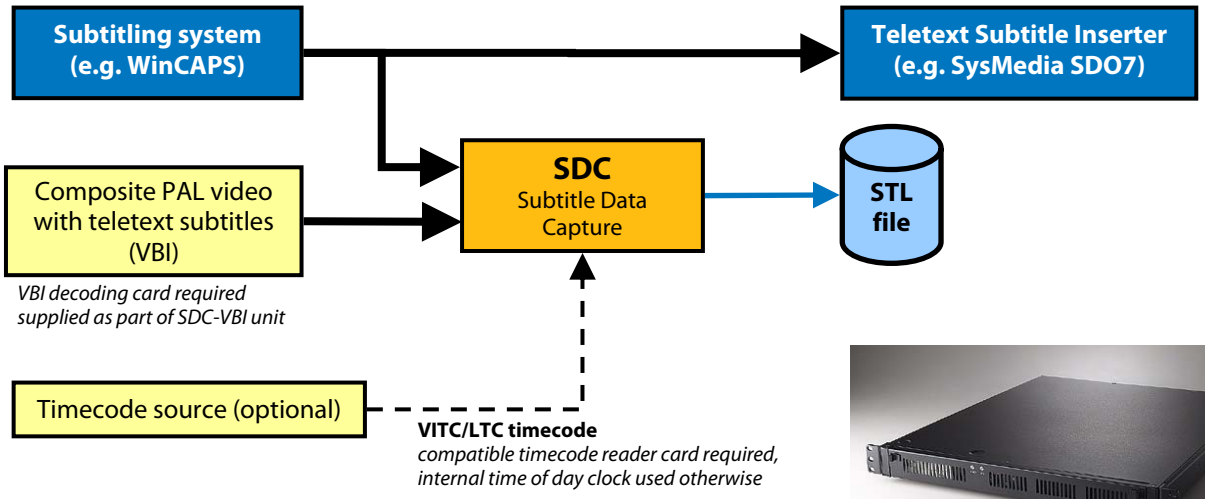
The STL file can then be loaded into any suitable subtitle playout system (such as ProSTAR) or used as a prepared/recorded segment within a live programme subtitled (timed or un-timed) by WinCAPS.



Software Specifications

Configuration, control and monitoring	Separate client utility (can be used on any Windows PC connected to the unit via IP as well as on the unit itself) to set file name and path; control start/duration/stop and programmable timers for automatic operation by schedule (daily, weekly, weekdays, weekends);.
Automation control	remote start/stop control from automation system GPI trigger via serial port (automatic file naming by start date/time: yymmddhhmmss.stl)
Inserter protocol input	Newfor or SysMedia SDO4/SDO6 serial or IP protocol (serial input may require RS232-USB adapter), please ask about other protocols
File output	STL subtitle file to EBU Tech 3264-E Exchange File Format
Timecode input	Standard: time-of-day timecode or zero from start of event (generated using internal PC clock) Option (SDC-VBI): VITC or LTC (via timecode reader card)

Block Diagram



Hardware Specifications (SDC-VBI unit)

Analogue video input	Composite analogue PAL/SECAM, 1 V pk-pk into 75 ohms +3 dB / -6 dB World System Teletext, 625 line, ETS 300706, CCIR Teletext System B, level 1 or 1.5 Maximum 33 data lines in VBI range 7 to 22 & 319-335, serial or parallel transmission User configurable page number, block mode or scroll mode
Power supply	100-264 VAC, 50-60Hz
Temperature range	Operating 0–40°C / Storage -20–60°C
PC specification (minimum)	Windows 7, Pentium 4 2.4 GHz processor, 1GB RAM, 80GB HDD, DVD/RW, 10/100 or Gigabit NIC, 2 x USB 1.1 (via front panel), 1 x PS2 with keyboard/mouse splitter (via front panel or rear)
Size	1U: 482 x 44 x 500mm (packed: 66 x 61 x 18 cm, approx weight 11 kg)