

SOUND STRETCHER

TI eXpressDSP compliant algorithm

Features

Sound Stretcher allows playback of speech in variable fast or slow modes without distorting the voice pitch, so that speech still sounds natural. It is an algorithm of real time speech modification :

- ◆ Up to 3 times faster/slower - adjust speech tempo according to your needs.
- ◆ Low resource consumption - even resource-limited DSP-based devices (mobile equipment, PDAs, etc) can be enabled.
- ◆ Language-independence - this algorithm can be used for any language, regardless of speaker's accent.
- ◆ And the most important feature of Sound Stretcher is the simplicity of use for a developer with minimal time and money Sound Stretcher may be embedded in any application.

Applications

Sound Stretcher may be applied for numerous tasks, to mention just a few:

- ◆ Language acquisition devices - when slowed down, speech is understood better
- ◆ Transcription equipment, the ability to slow down speech and still hear coherent sentences makes the task quicker and easier.
- ◆ Multimedia equipment, In general, anywhere, where time matters, Sound Stretcher may be used to adjust speech speed to match the required time frame. E.g. Broadcasting advertising

Functional Overview

- ◆ Sampling rate 8000-44100 Hz
- ◆ Platform -TMS320C54xx DSP

TI eXpressDSP (XDAIS) Compliance Benefits

- ◆ Sound Stretcher is fully TI eXpressDSP compliant algorithm and thus saving time and money saving in building in any DSP solution.
- ◆ This algorithm follows the run-time conventions imposed by TI's implementation of the C prog language.
- ◆ This algorithm is re-entrant within a preemptive environment (including time-sliced preemption).
- ◆ All algorithm data references are fully relocatable.
- ◆ All algorithm code is fully relocatable.
- ◆ This algorithm does not directly access any peripheral device.
- ◆ This algorithm does not include definitions specific to a debug variant.

Metrics

- ◆ Memory requirements
- Code 6 KW
- ◆ Processor requirements 2 MIPS

Engineering Services

By request, the support of the other platforms may be developed by experienced and highly professional DSP engineers of Speech Technology Center. Customization according to the customer's requirements is also possible.

eXpressDSP™ Compliant



TEXAS INSTRUMENTS