Russia,
St. Petersburg

Voice of the Future

Speech Technology Center

VoiceCom

TI eXpressDSP compliant algorithm

Features

VoiceCom offers to the developers of DSP applications a possibility to enable their products with voice interface, which is a natural and convenient way to control any device.

- Voice command (single-word/phrase) recognition technology. Provides speaker-dependent recognition (user trains each command before use) and speaker-independent recognition for a limited set of commands (user can use a set of commands without previous training) which is done by collecting a voice database for this set in advance.
- Low resource consumption. Even resource-limited DSP-based devices (mobile equipment, PDAs, etc) now can have powerful voice interface.
- Language-independence. The technology can be used for any language, while most competitors' technologies are limited to a few languages.
- Noise robustness. VoiceCom technology includes low resource consuming noise cancellation. For applications in a noisy environment, VoiceCom can be combined with Denoiser Clear Voice, a powerful noise cancellation technology.

And the most important feature of VoiceCom is the simplicity of development. Any product can be quickly and efficiently enabled with such an advanced option as Voice Interface.

Applications

Possible Applications :

- **Consumer electronics** - Use Voice commands rather than IR remote controls.
- **Industrial Equipment** - Many industrial applications where operators need to have their hands free for other tasks.
- **Hands-free sets** - drive and speak on your mobile safely, because all you need to dial a number or to search the phonebook is your own voice.
- **PDAs** - If it is not possible to design a portable device with a keyboard, just make it controlled by voice - it's easy.

In general, VoiceCom allows to control by voice almost anything and makes life easier.

TI eXpressDSP (XDAIS) Compliance Benefits

- VoiceCom is fully TI eXpressDSP compliant algorithm and this guarantees 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.

Functional Overview

- Platform -TMS320C54xx

Metrics

- Memory requirements
  - Code 20 KW
  - Data 10 KW
- Processor requirements 2.5 MIPS

Engineering Services

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

eXpressDSP™ Compliant

DSP

TEXAS INSTRUMENTS

Speech Technology Center
Office: 4, Krasutskogo str. 196084, St.Petersburg, Russia ◆ Tel.: +7 812 325 8848 Fax: +7 812 327 9297 ◆ Email: sales@speechpro.com http://www.speechpro.com ◆ Postal address: P.O. Box 114, Lappeenranta SF-53101, Finland