

# DOUBLE TALK

## Detector

### Overview

Double Talk Detector (DTD) can be used for estimate degree of similarity between channels. Depending on conditions of the channel, mips and quality detection, it's possible different realizations of variants Double Talk detectors. It allows using them effectively on the background of broadband noises and channel distortion.

It's developed two modifications of Double Talk detectors:

- DTD based on comparing of the normalized cross-correlation vector between channels in each analyzed frame;
- DTD based on comparing entropy levels between channels in each analyzed frame.

Double Talk Detector effectively can be used at the suppression of echo in devices VOIP telephony (with echo cancellers).

### Features

- Fast adaptation to changing of channel distortion and external noises;
- Operation with low SNR;
- Easy integration with target applications.

### Signal requirement

- Signal format: PCM 16-bits;
- 8 kHz, ..., 48 kHz sampling rate.

### Availability

- Float/Fixed-point C++ source code;
- DLL libraries for MS Windows;
- PC demo for MS Windows is available on request;
- Portability to any DSP, ARM or RISC platform.

GritTec laboratory specializes on research and development of the unique algorithms and technologies in the field of digital signal processing (DSP). GritTec's research is focused on speech enhancement & concealment, speech recognition, voice biometric, methods of adaptive filtration and other speech & audio technologies. All available off-the-shelf our DSP products and solutions can be plugged into the customer system.

### Contacts

Home Page: <http://www.grittec.com>  
Contact us: [sales@grittec.com](mailto:sales@grittec.com)