elaman
GERMAN SECURITY SOLUTIONS

MELANIE
Speech Detection
Language Identification
SQ

MELANIE
Speech Detection & Language Identification, SQ

Functionality

Speech signals are often recorded with pauses and noise within the speech signal. This algorithm is able to detect those parts of a speech signal that contain speech on larger segments of audio signals. The results are very useful to reduce the amount of data that have to be stored and anaylsed.

Speech signals can be analysed according to the language prevailing in the speech.

For each speech signal, an overall score and probability is estimated. In addition, these values can also be estimated for any time interval.

Training of Models

Goal
Training is performed in order to optimise the models on the languages and channel of the application. Training

Data
The training data must be labeled according to either speech/nonspeech or with the prevailing language. The data must be representative and as similar as possible to the data of the application. A minimum of one hour of data is required for each language.

Trained Models
In case of insufficient data, trained models for a set of languages can be provided to use the system from scratch.

Technical Data

OperatingSystem   Available on Windows XP and Linux
Processing Time   • On a P4; 3GHz, 1GB RAM computer
                  • Classifying 10 different languages
                  • 1/15 of real time; i.e. a signal of 15 minutes length is processed in one minute
Recognition Rate The recognition rate depends on the number of languages, on the similarities and charactistics of the languages, and on the speech quality.

Products

Mel-Pr-SQ-site   Production environment for MELANIE SQ (site license)
Mel-Pr-SQ-PC   Production environment for MELANIE SQ (PC license)
Mel-Tr-SQ   Training environment for MELANIE SQ
Mel-LM-SQ   Trained language models for classification with SQ

If you would like further Information about ELAMAN,
or would like to discuss a specific requirement or project, please contact us at:

Elaman GmbH
German Security Solutions
Seitzstr. 23
80538 Munich
Germany

Tel: +49-89-24 20 91 80
Fax: +49-89-24 20 91 81
info@elaman.de
www.elaman.de