Association for Computational Linguistics and Chnese Language Processing
MAT Speech Database – MAT-2000

Media: 2 DVD

Price: For Non-profit organizations: USD 700.00 (including handling charge)

For Commercial organizations: USD 3,500.00 (including handling charge)

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1. MAT-2000

This is a product of the joint valiation project conducted by Association of Computational Linguistics and Chinese Language Processing and Philips Innovation Center-Taipei. The original database is MAT-2400 where speech data are collected through telephone networks in Taiwan. The speech signal is recorded under the following conditions.

    sampling rate   : 8kHz
    bits per sample : 16
    encoding type   : 16-bit linear PCM
    max. data length : 160,000 samples

They are grouped into five sub-databases. A detail description is given in the following table.

Sub-Databases	Prompting Item Numbers	Speaking Style	Description
MATDB-1	1 - 9	spontaneous	short answering statements
MATDB-2	10 - 14	read	numbers pronounced in five different ways
MATDB-3	15 - 26	read	Mandarin syllables
MATDB-4	27 - 56	read	words of 2 to 4 syllables
MATDB-5	57 - 66	read	phonetically balanced sentences

Each recorded utterance is in a speech dat file. The file name has the format;

    tnnmmiis.VAT,

where   t --   database code in alphabet,
         nn --   content code in digits,
         mm --   prompting sheet number,
         ii --   item number on prompting sheet,
         s --   sequence number.
         VAT --   file extension name dedicated to MAT speech file

2. Programs

Speech File Editing Program (VEDITOR)

This program runs under a Windows system of Chinese version. It requires the screen display size of 1024 x 768. It provides a tool for users to edit speech files. The file header parameters, as well as the waveform, are displayed on the screen. The user can edit the file header, modify the waveform, and playback the edited voice in an interactive mode.

File conversion (VATWAV)

This program is for converting an MAT speech data file into *.WAV format. Then the facilities for *.WAV files can be applied to the recorded speech data.

3. File Structure

Bin (Programs)
    Veditor.exe
    Point2.tab
    Syl_imf.tab
    Vatwav.exe
    Struct.txt

Doc (Document files)
    Mandarin-syllable-table.DOC
    MAT-2000-brief.doc
    MAT-2000-Title-page.doc
    MAT-2000-file-format.doc
    MAT-2000-project.doc

Matdb_1 (short answering statements)
    Train
        Female
            Tnnmm
            ……
        Male
            Tnnmm
            …….
    Unusable
        Female
            Tnnmm
            …….
        Male
            Tnnmm
            ……..

Matdb_2 (numbers pronounced in five different ways)
    Train
        Female
            Tnnmm

```
          ……
     Male
          Tnnmm
          …….
Unusable
     Female
          Tnnmm
          …….
     Male
          Tnnmm
          ……..

Matdb_3  (Mandarin syllables)
     Train
          Female
               Tnnmm
               ……
          Male
               Tnnmm
               …….
     Unusable
          Female
               Tnnmm
               …….
          Male
               Tnnmm
               ……..

Matdb_4  (words of 2 to 4 syllables)
     Train
          Female
               Tnnmm
               ……
          Male
               Tnnmm
               …….
     Unusable
          Female
               Tnnmm
               …….
          Male
               Tnnmm
               ……..

Matdb_5  (phonetically balanced sentences)
     Train
          Female
               Tnnmm
               ……
          Male
```

Tnnmm

....

Unusable

Female

Tnnmm

....

Male

Tnnmm

....

Validate (validation information for speech data files)