MAT Speech Database – MAT-2500ExtV

Media: 7 CD-ROMs

1. MAT-2500ExtV

This is a product of the joint validation project conducted by Association of Computational Linguistics and Chinese Language Processing and Computer & Communication Laboratories of Industrial Technology Research Institute, Taiwan. The original database is MAT-2500Ext where speech data are collected through telephone networks in Taiwan. The database contains files provided by 2573 speakers (1268 males and 1305 females). 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 four sub-databases. A detail description is given in the following table.

Sub-Databases	Prompting Item Numbers	Speaking Style	Description
MATDB-6	67 - 68	read	Numbers
MATDB-7	69 - 72	read	Special terms
MATDB-8	73 – 82	read	Words of 2 to 4 syllables
MATDB-9	83 - 90	read	Sentences

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

    tnnxmiis.VAT,

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

A Phonetic Symbol File (PTC file) is assigned to specify the contents of a set of speech data files. The contents in the PTC file are the designated utterances in sequence of item number. The file name of PTC files has the format;

    tnnx.PTC

where   t   --   database code in alphabet,
        nn --   content code in digits,
        x --   code of recording site

For each item(ii) in a prompting sheet (nnx), the format is,

(item no.) <Chinese characters>

<corresponding Chinese phonetic symbols> ("Ju4 In1 Fu2 Hau4")
<corresponding phonetic symbol in Pin-Yin>.

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

INSTRUCTION
     Mandarin-syllable-table.DOC
     MAT-2500ExtV-Description
     MAT-2500ExtV-Brief.DOC
     MAT-2500ExtV-Title-page.DOC
     MAT-file-format.DOC

PROGRAM
     VEDITOR.EXE
     POIN2.TAB
     SYL_IMF.TAB
     VATWAV.EXE
     STRUCT.TXT

PTC-tnn1
MATDB-6
MATDB-7
MATDB-8
MATDB-9

PTC-tnn3
MATDB-6
MATDB-7
MATDB-8
MATDB-9

PTC-tnn4
MATDB-6
MATDB-7
MATDB-8
MATDB-9

PTC-tnn5
MATDB-6

MATDB-7
MATDB-8
MATDB-9

PTC-tnn6
MATDB-6
MATDB-7
MATDB-8
MATDB-9

PTC-tnn8
MATDB-6
MATDB-7
MATDB-8
MATDB-9

PTC-tnn9
MATDB-6
MATDB-7
MATDB-8
MATDB-9