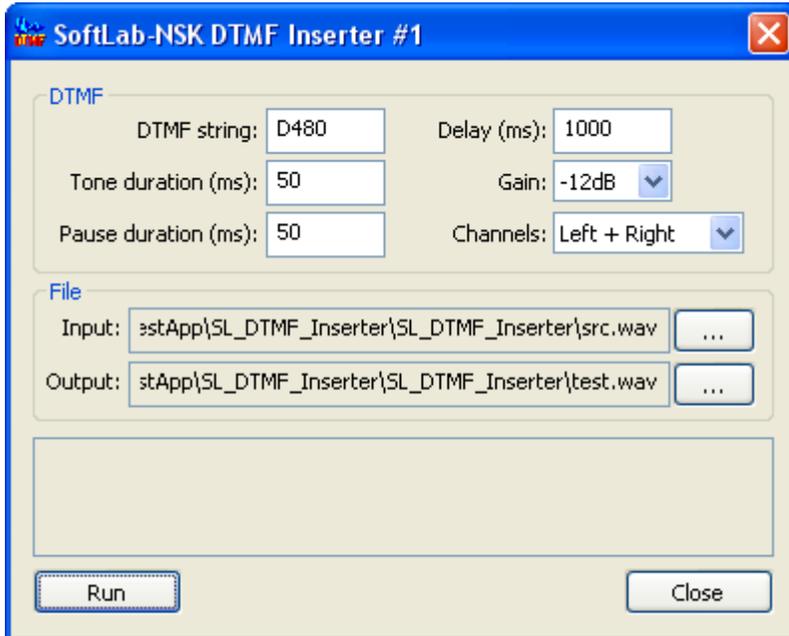


## Insertion of DTMF marks into audio file

The SL\_DTMF\_Inserter program is designed for inserting DTMF marks into WAV audio file. If file with marks is stored with video file of advertisement background then its audio accompaniment (with mark) is extracted from external WAV file.

Program location: C:\Program Files\ForwardT Software\Tools\SLDTMFInserter\SL\_DTMF\_Inserter .exe



DTMF mark parameters are specified in the «**DTMF**» group:

- **DTMF string** sets a sequence of DTMF symbols (possible symbols here are: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, \*, #), for example "D480".
- **Tone duration (ms)** sets a duration of tone of each DTMF symbol (in milliseconds).
- **Pause duration (ms)** sets a duration of pause among DTMF symbols (in milliseconds).
- **Delay (ms)** sets a delay from start of DTMF mark till finish of audio file.
- **Gain** sets volume of DTMF mark tone (0dB is a maximal volume).
- **Channels** sets a way of DTMF mark adding if audio file is in stereo format:
  - **Left** is when mark is inserted in the left channel only.
  - **Right** is when mark is inserted in the right channel only.
  - **Left + Right** is when mark is inserted in both channels.
  - **Left – Right** is when a mark is inserted in both channels in an inverted format, when combining both channels in result mono signal the mark is not heard at all.

Input and output files are specified in the «**File**» group:

- **Input** is a name of input WAV file where DTMF mark must be inserted. Input audio file must be in the PCM 16 bite mono or stereo format, i.e. uncompressed usual audio file.
- **Output** is a name of output WAV file that contains audio from input file with inserted DTMF mark.

The «**Run**» button starts a process of DTMF mark. There is an information text field above the button where result of DTMF mark insertion is displayed. The second string displays оэффиценты ослабления for the left channel of WAV input file, the third string has the same for the right channel. If some there is an error then a dialog window with error description occurs.

The «**Close**» button saves settings and closes the program. Current settings become active at the following program start automatically.

The program saves settings in registry key.

HKEY\_CURRENT\_USER\Software\Softlab-Nsk\DTMF\_Inserter\#1.

At start from a command line you may specify #N as a parameter, where N is an arbitrary number that specifies index of instance with saved settings.

Example:

```
" C:\Program Files\ForwardT Software\Tools\SLDTMFInserter \ SL_DTMF_Inserter .exe" #2
```

In this case you may save settings for different DTMF marks, for example, for an input and output.