

音声認識のサンプル

2019/04/07

.NET 4.6.2で動くコンソールアプリ追加。



[eselipsync.zip](#) 2019-04-07 コンソールアプリ。何かキーを押すと終了しlipsyncデータ取得に使えないか調査の過程でできた物。

2016/02/15

とりあえず



[簡単なアプリ](#) .NET Framework 4.5.2で確認

入力は既定のデバイスになっているマイクから。



コンソール版のソース

Program.cs

```
using System;
using System.Speech.Recognition;

namespace eselipsync
{
    class Program
    {
        static void Main(string[] args)
        {
            audioparse a = null;

            if (args.Length == 1)
            {
                a = new audioparse(args[0]);
            }
            else
            {
                a = new audioparse();
            }

            try
            {
                a.parse();
                Console.ReadKey();
            }
            catch (Exception e)
            {
                Console.WriteLine("{0},{1}", e.Message, e.StackTrace);
            }

            a.close();
        }
    }
    class audioparse
    {
        public bool finish { get; private set; }
        public bool sourceSw { get; private set; }

        SpeechRecognitionEngine sre;
        string wavpath;

        public audioparse(string wav)
        {
            finish = false;
            wavpath = wav;
            sourceSw = true;
        }
        public audioparse()
    }
}
```

```
{
    finish = false;
    wavpath = "";
    sourceSw = false;
}
public void close()
{
    sre.Dispose();
}
public SpeechRecognitionEngine parse()
{
    sre = new SpeechRecognitionEngine();

    sre.LoadGrammar(new DictationGrammar());

    sre.SpeechDetected += sre_SpeechDetected;
    sre.SpeechRecognized += sre_SpeechRecognized;
    sre.RecognizeCompleted += sre_RecognizeCompleted;
    sre.AudioStateChanged += sre_AudioStateChanged;

    //sre.SpeechHypothesized += sre_SpeechHypothesized;
    //sre.SpeechRecognitionRejected +=
sre_SpeechRecognitionRejected;

    //sre.BabbleTimeout = new TimeSpan(Int32.MaxValue);
    //sre.InitialSilenceTimeout = new TimeSpan(Int32.MaxValue);
    //sre.EndSilenceTimeout = new TimeSpan(0,0,10);
    //sre.EndSilenceTimeoutAmbiguous = new
TimeSpan(Int32.MaxValue);

    if (sourceSw)
    {
        sre.SetInputToWaveFile(wavpath);
    }
    else
    {
        sre.SetInputToDefaultAudioDevice();
    }

    Console.WriteLine("s 認識開始");

    sre.RecognizeAsync(RecognizeMode.Multiple);

    return sre;
}

private void sre_AudioStateChanged(object sender,
AudioStateChangedEventArgs e)
{
    Console.WriteLine("d 入力,{0}", sre.AudioState);
}
```

```
void sre_RecognizeCompleted(object sender,
RecognizeCompletedEventArgs e)
{
    finish = true;
    sre.RecognizeAsyncCancel();
    sre.RecognizeAsyncStop();
    Console.WriteLine("r 認識終了");
}
void sre_SpeechDetected(object sender, SpeechDetectedEventArgs
e)
{
    Console.WriteLine("d 検出");
}
void sre_SpeechRecognized(object sender,
SpeechRecognizedEventArgs e)
{
    Console.WriteLine("a {0,0:f9}, {1}", e.Result.Confidence,
e.Result.Text);
    for(int idx =0; idx<e.Result.Words.Count; idx++)
    {
        Console.WriteLine("p {0:f9}, {1} -> {2} -> {3}",
e.Result.Words[idx].Confidence,
e.Result.Words[idx].Pronunciation,
e.Result.Words[idx].LexicalForm,
e.Result.Words[idx].Text);
    }
}
}
```

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<https://wiki.hgotoh.jp/> - 努力したWiki

Permanent link:
<https://wiki.hgotoh.jp/documents/tools/speechsynthesis/tools-003>

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