It's hard to recognize speech

6.883 – 5508   Problem Set 6
Due Wednesday May XX , 2006

1 Background

The goad of this 'simplier' problem set. is to just get the experience of using a simple speech recognition system.

2 Dynamically generate a grammar

Rather than writting the grammar by hand (although you should do that for the initial test case), this assignment is to generate part of the grammar dynamically. You may think of your own examples, but here is a default one:

As discussed in the speech controlled flash animation, assume there is a directory with a set of files in a predetermined name format. That is, the file names are of the form: object-action.type

The simpliest version, let us use the type of txt. Files could be jpg or animated gif's, but let's keep it simple. File names could be the following: "dog-barks.txt","dog-barking.txt", "dog-walks.txt", "cat-purrs.txt"

In this case, there are two objects and four actions. The object and action nonterminals in the grammar are generated from the file names.

The user should be able to say things like:

- Please show me how the dog barks.

- The dog then barks.

- I can see that the dog is barking.

There is a static part of the grammar that has the form of the sentences. The object and actions are dynamically generated.

2.1 part one

create the files in the directory, write the grammar, write a python program, that sends the audio wave and grammar to the server, gets back the object and action, and then displays the contents of the file.

2.2 part two – advanced

Add some error control to part one. For example, if one says at the cat is walking, have your program attempt to do something useful.