

## Animation Scripting Language

We propose to create a scripting language for generating choose your own adventure style animations. The language allows the programmer to create a story and then have the ASL interpreter play the animation. Stories can be watched passively, or contain pauses for user interaction to create a choose your own adventure branching structure.

The programmer first defines a collection of scene objects, using the style of a film script, and then defines a simple flow of execution. Each scene object has properties that can be set, a collection of characters (which each have their own properties), and a sequential description of events associated with timers. An example scene object might look like this:

```
SCENE(name=Hamlet, background=red, fade-in="0.02")  
CHARACTER Hamlet(color=green, height=10px);
```

```
[00.05 - 00.10] HAMLET: "I'm so sad, maybe I should kill myself."  
[00.20 - 00.25] [HAMLET WALKS LEFT 20px]  
[00.30] HAMLET: "To be or not to be?"
```

```
END-SCENE;
```

If the script consists of only a collection of scenes, when it is executed the scenes will be played in order from top to bottom. However, after all the scene objects have been created, the programmer has the option of defining at the bottom of the document, the flow of events. The programmer can use simple branching and looping structures along with several reserved words which are sensitive to user interaction. An example of flow control might look like this:

```
FLOW:  
SCENE[Hamlet] BRANCH (SCENE[Suicide], SCENE[Vacation])  
SCENE[Vacation] BRANCH(SCENE[Paris], SCENE[London])
```

The implementation of A.S.L will actually rely on Java and Swing. The A.S.L compiler will convert the script into java code that uses Swing. It will compile the code, and then execute it.

**N.B.** We are only a group of two. We have structured our proposal such that if you think it is too big for two people we can remove the branching and flow control aspect of it. What do you think?