Programming with Alice

Object Methods

Object Methods

Objects can perform actions, and these actions are specified by methods.

There are primitive methods, which all objects can perform (e.g., movement).

Many objects have custom methods that only work for that class of object.

It is also possible to write new methods for an object, or its entire class.

Primitive Object Methods

Current Object Only

- move (at speed)
- turn (at speed)
- roll (at speed)
- say / think
- set pose
- stand up

Target Other Object

- move to / toward / away from
- turn to face
- point at
- orient to

Creating New Methods

As Alice worlds become more complicated, it becomes more important to organize our programs. A single, large method is no longer practical for controlling all of the animation.

By adding our own custom methods to an object, we can add behaviour to that object with a single method call.

Add a new method using the Create New Method button for the selected object.

Naming in Alice

We will use one of the most common conventions, frequently used in Java, C, and C++ programming.

In general:

- use meaningful names
- use only letters and numbers in names
- no spaces in names
- camelCase for objects & methods
- PascalCase for classes

Naming in Alice

Alice automatically names any new programming construct, but these names are usually not very meaningful or useful.

Any naming used should be descriptive and meaningful. It is also useful to follow a naming convention, which is a set of rules describing how the name should appear.

Naming Classes - PascalCase

Class names begin with uppercase letters. Each word in the name will also start with an uppercase letter to help with readability.

For example,

```
IceSkater
BadGuyRobot
CheshireCat
```

Naming Objects & Methods
camelCase

Object and Method names begin with a lowercase letter. All other words in the name begin with an uppercase letter to help with readability.

For example,

```
queenOfEngland (object)
queenOfEngland.waveHand (method)
```