A programming environment supporting a prototype-based introduction to OOP
CONTEXT

☐ First OOP course

☐ Previous knowledge in structured programming (PASCAL)

☐ Tight schedule
PROBLEM

☐ Paradigm shift

☐ A lot of new “stuff” to learn in order to get a first working program
EXAMPLE IN SMALLTALK

Object subclass: #Dragon

InstanceVariableNames: 'weight'
classVariableNames: "
poolDictionaries:"
category: 'FirstExample'

-- all --
accessing as yet unclassified
MOTIVATION

Focus on:

- Messages
- Objects
- Rich interaction between them
- Polymorphism
SOLUTION

☐ Start with a custom programming environment

☐ Delay the introduction of classes and inheritance
WHAT ABOUT SELF?

martes 23 de agosto de 2011
WHAT ABOUT SELF?

- Traits, prototypes, parent slots, etc.
- GUI is not familiar to the students
FEATURES

☐ Definition and usage of objects
☐ Multiple object environments
☐ Live object diagrams
☐ Explicit differentiation between objects and references
EXAMPLE IN LOOP
TOWARDS CLASSES

saphira >> eat: aThing
    self weight: self weight + aThing weight.

arthur >> weight
    ^yearsInTheThrone * 666

daisy >> weight
    ^732
TOWARDS CLASSES

Dragon >> eat: aThing
    self weight: self weight + aThing weight.

King >> weight
    ^yearsInThrone * 666

ScottishHairyCow >> weight
    ^732
## EXPERIENCE

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<th>Pass Rate</th>
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CONCLUSIONS

☐ More time for the important concepts
☐ More time for more complex exercises
☐ Concrete to abstract learning path
QUESTIONS