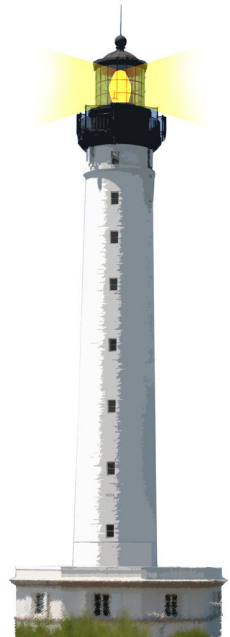
Really Understanding Class Methods

Damien Cassou, Stéphane Ducasse and Luc Fabresse

W5S02

Pharo

http://www.pharo.org



What You Will Learn

- There is only one lookup algorithm
  - it works for both instance and class methods
- Class methods are not Java-like static methods

There is Only One Lookup

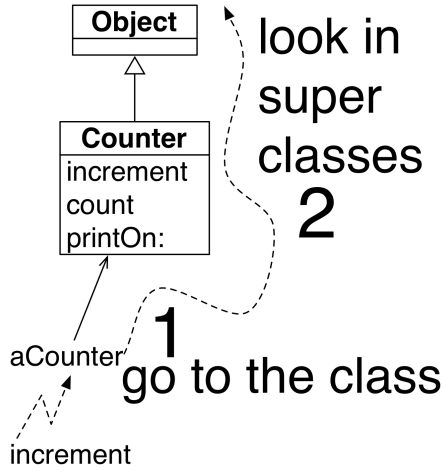
The lookup starts in the **class** of the **receiver** then:

- if the method is defined in the class, it is returned
- otherwise the search continues in the superclass

Sending a Message

Sending a message is a two-step process:

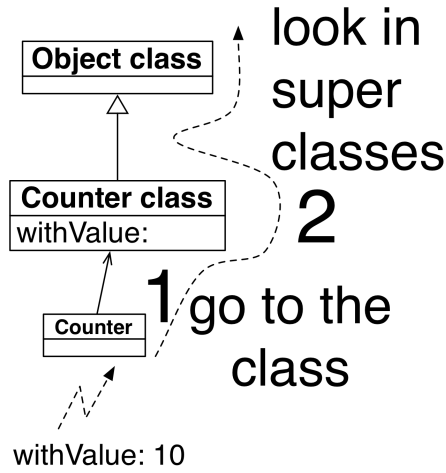
1. look up the method matching the message
2. execute this method on the receiver



Sending a Message to a Class

Sending a message to Counter (a class)

- go to the class of the class (Counter class)
- follow the inheritance chain
- apply the found method to the receiver: the class Counter



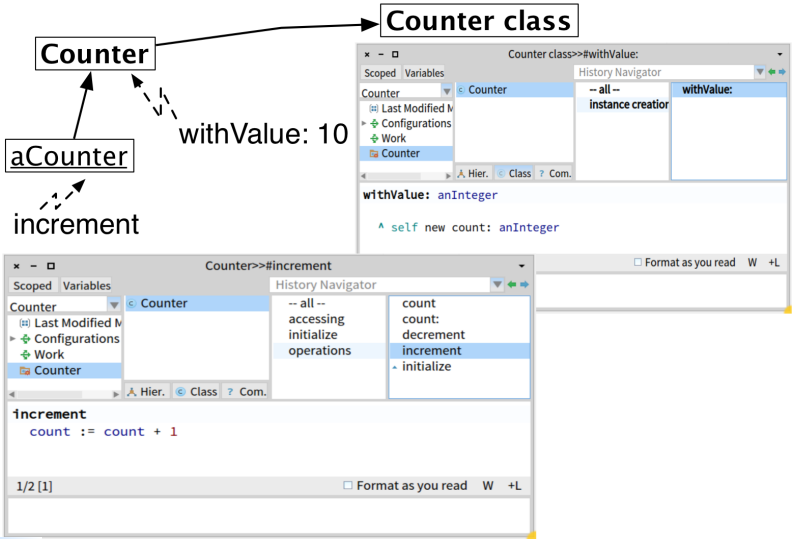
A Class is an Instance

A class is an instance of another class (called a metaclass)

- Counter is the unique instance of the class Counter class
- A metaclass is just one class whose instances are classes
- Counter class is automatically created after Counter
- The class of class XXX is named XXX class

Browsing two Classes

The browser can edit two classes: a class and its class



What You Should Know

- A class is an object
- A class can receive messages
- A class is an instance of a class, called a metaclass
- Method lookup works the same
- More during the lecture Understanding Metaclasses

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