

# Inheritance and Lookup

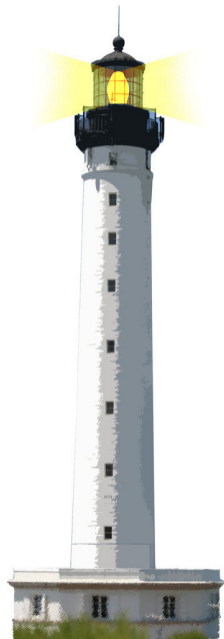
## 5: Lookup in metaclasses

Damien Cassou, Stéphane Ducasse and Luc Fabresse

W4S05



<http://www.pharo.org>



# Goal

1. in Pharo, everything is an object
2. objects can receive messages
3. classes are objects too

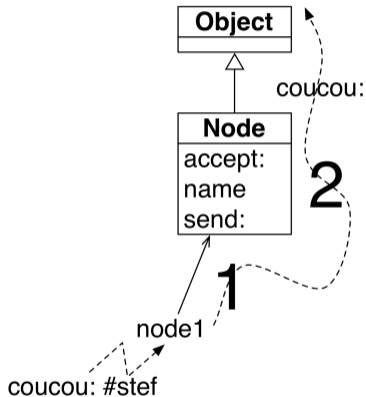
Classes can receive messages. The mechanism is **exactly** the same



# Only One Lookup Rule

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

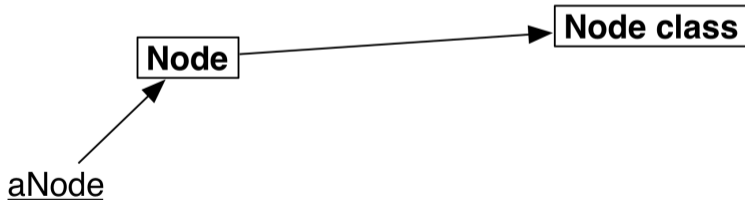
- if the method is defined in the class, it is returned
- otherwise the search continues in the superclass



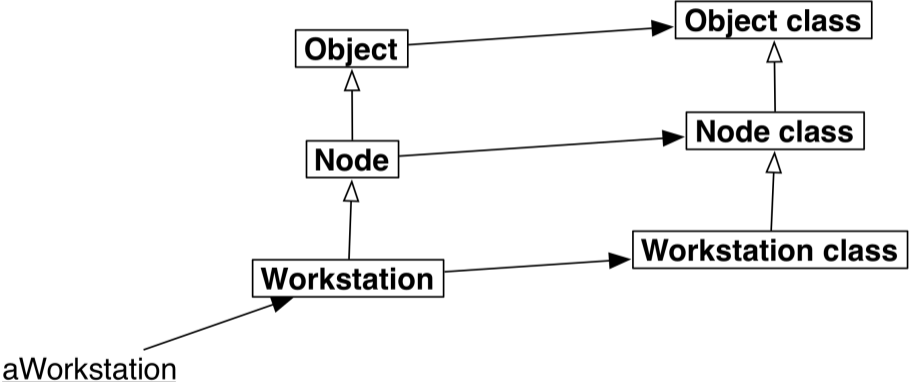
# A Class is an Instance of Another Class

Class X is always the unique instance of the class X class:

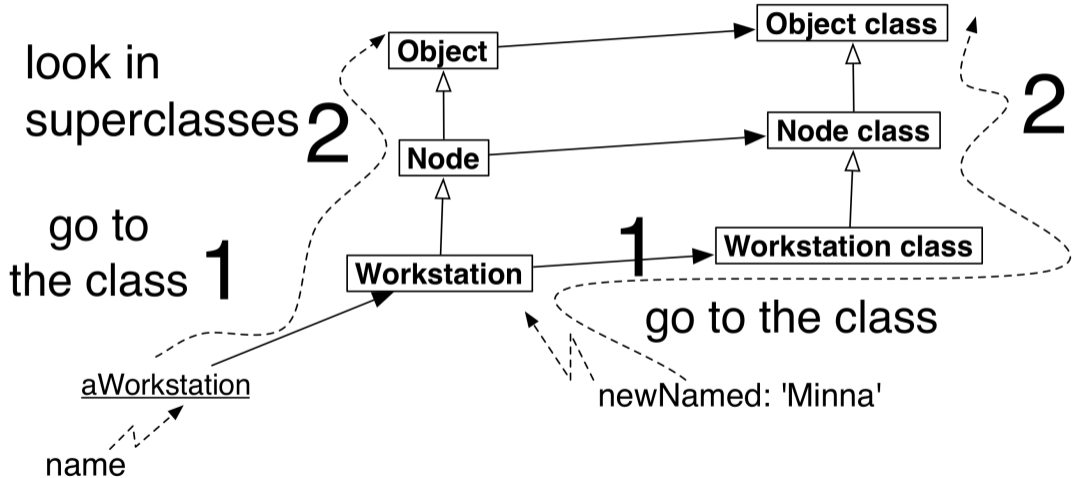
- Node is a class and an object
- each object is an instance of a class
- the class of Node is Node class
- the class Node class is automatically created



# Superclass Chain



# Lookup of Class Methods is No Different



# What You Should Know

- A class is an object
- A class can receive messages
- Method lookup is exactly the same as for all objects:
  - go to the class of the receiver
  - follow inheritance chain
- More during the lecture Understanding Metaclasses



A course by



and



in collaboration with



Inria 2020

Except where otherwise noted, this work is licensed under CC BY-NC-ND 3.0 France

<https://creativecommons.org/licenses/by-nc-nd/3.0/fr/>