Learning Object-Oriented Programming and Design with TDD

Class Methods in Pharo

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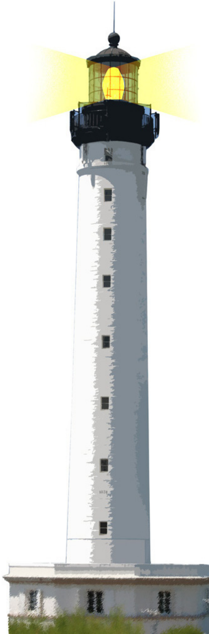


http://www.pharo.org

W6S03

Class Methods

1. In Pharo, everything is an object
2. Objects can receive messages
3. Classes are objects too

Classes can receive messages

Examples

```
Time now
>>> 9:18:36.304688 pm
```

The message now is sent to the class Time

```
Date today
>>> 29 July 2015
```

The message today is sent to the class Date

Examples

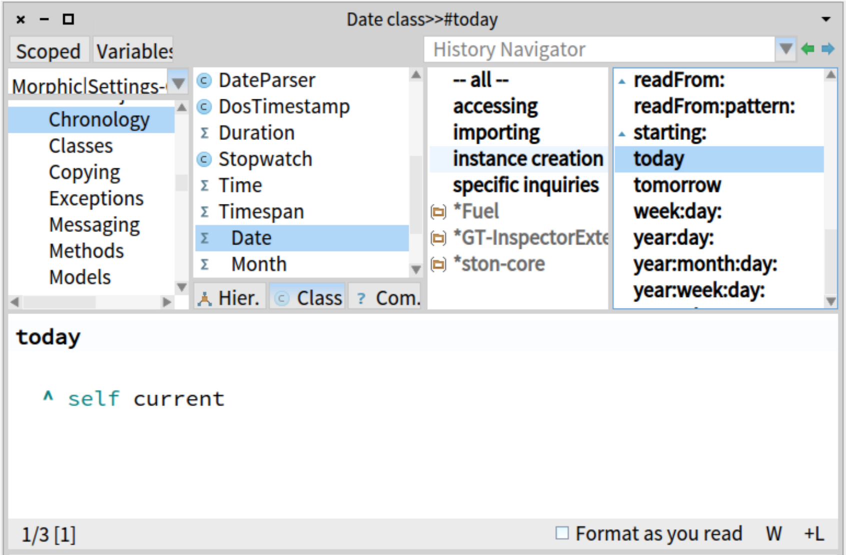
```
FileLocator workingDirectory
```

```
ZnEasy getPng: 'http://pharo.org/web/files/pharo.png'
```

```
ZnServer startDefaultOn: 8080
```

Class Methods are Defined on Class Side

Note the Class button pressed!



```
today

  ^ self current
```

Common Mistake

```
Counter class >> withValue: anInteger
  self new
    value: anInteger;
    yourself
```

Counter withValue: 10 **returns the class** Counter **instead of a new instance**

Why?

```
Counter class >> withValue: anInteger
  self new
    value: anInteger;
    yourself
```

is equivalent to

```
Counter class >> withValue: anInteger
  self new
    value: anInteger;
    yourself.
  ^ self
```

self **here is the class** Counter **(the receiver of the message)**

Solution

```
Counter class >> withValue: anInteger
  ^ self new
    value: anInteger;
    yourself
```

Summary

- Classes are objects
- Messages can be sent to classes too
- Class-side methods are no different from other methods
- Most class-side methods create new instances
- To define a class-side method, press the class button

Resources

- Pharo mooc - Videos W3S06: `http://mooc.pharo.org`
- Pharo by Example: `http://books.pharo.org`

A course by Stéphane Ducasse
http://stephane.ducasse.free.fr

Reusing some parts of the Pharo Mooc by

Damien Cassou, Stéphane Ducasse, Luc Fabresse
http://mooc.pharo.org