



**Learning Object-Oriented
Programming and Design with TDD**

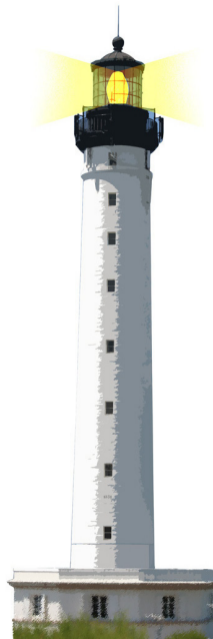
Understanding the Implementation of `ifTrue:ifFalse:`

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W5S04



Yes ifTrue:ifFalse: is a message!

```
Weather isRaining  
  ifTrue: [ self takeMyUmbrella ]  
  ifFalse: [ self takeMySunglasses ]
```

- Conceptually ifTrue:ifFalse: is a message sent to an object: a boolean!
- Heavily optimised by the compiler

Exercise

- Propose an implementation of `ifTrue:ifFalse:`
- You only have objects, messages and closures

```
false ifTrue: [ 3 ] ifFalse: [ 5 ]  
>>> 5
```

```
true ifTrue: [ 3 ] ifFalse: [ 5 ]  
>>> 3
```

Implementing ifTrue:ifFalse:

- Remember:
 - [] freezes body execution
 - value kicks execution of a frozen code
- How to implement ifTrue:ifFalse:?
- Remember Not and Or?



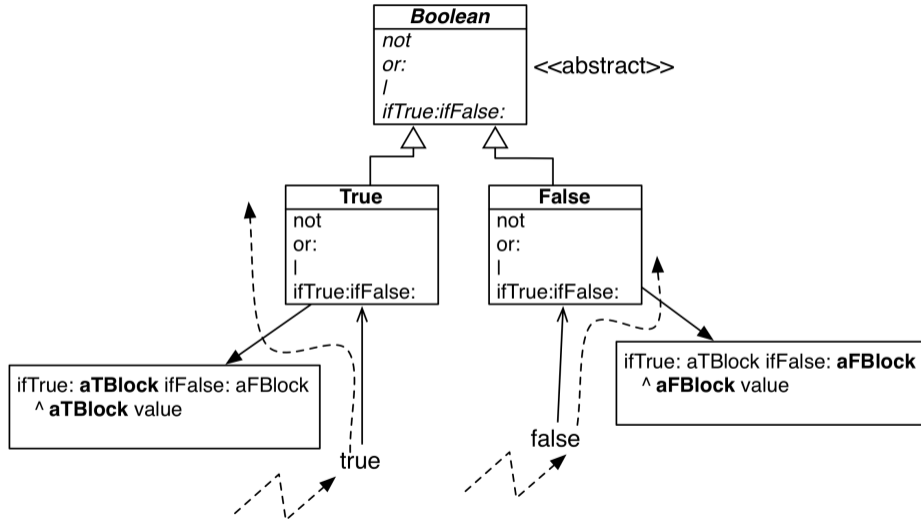
Implementation of ifTrue:ifFalse:

Let the receiver decide!

```
True >> ifTrue: aTrueBlock ifFalse: aFalseBlock  
      ^ aTrueBlock value
```

```
False >> ifTrue: aTrueBlock ifFalse: aFalseBlock  
      ^ aFalseBlock value
```

Implementation of ifTrue:ifFalse:



b ifTrue: [doTrue] ifFalse: [doFalse]



Conclusion

- Sending a message selects the right method
- Sending a message acts as a dynamic case
- Let the receiver decide
- [] freezes computation and value forces execution



Resources

- Pharo mooc - Videos W6S02: <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 Mocc by

Damien Cassou, Stéphane Ducasse, Luc Fabresse
<http://mocc.pharo.org>



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