Parentheses Vs. Square Brackets

Damien Cassou, Stéphane Ducasse and Luc Fabresse

http://www.pharo.org
() vs. []

- () just changes the priority of an execution but the program is executed
- [] blocks program execution: the program is NOT executed
Use [ ] for 'Unknown' Execution Occurrence

Use [ expressions ] when:

- expressions may not be executed at all (if, and, ...)
- expressions may be executed multiple times (while, ...)

W2S09 3 / 10
Example

n timesRepeat: [ self doSomething ]

timesRepeat: executes a number of times its argument, therefore the argument is a block
( ) vs. [ ] Example

```small
x isNil ifTrue: [ self doSomething ]
```

ifTrue: may execute or not its argument, therefore the argument is a block
() vs. [] Example

\[
[\text{self start}] \text{whileTrue: } [\text{self doSomething}]
\]

\text{whileTrue: may execute both its receiver and argument multiple times, therefore they are both a block}
1 to: n do: ... self doSomething ...

x ifEmpty: ... self doSomething ...
1 to: 100 do: [ :i | self doSomething ]

x ifEmpty: [ self doSomething ]
Summary

- ( ) is about changing the order of a computation
- [ ] is freezing the computation and controlling it