A Little Journey in the Smalltalk Model

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A pure and minimal object model

No constructors
No types declaration
No interfaces
No packages/private/protected
No parametrized types
No boxing/unboxing
Still powerful

Objects are instances of Classes

1600 simultaneous users
1.9 billions objects
10 000 updates/day

Objects are instances of Classes
(10@200)

Objects are instances of Classes
(10@200)

Objects are instances of Classes
(10@200) class

Objects are instances of Classes

(10@200) class
Point
Classes are objects too

Classes are objects too

Point selectors

> an IdentitySet(#eightNeighbors #+ #isZero #sortsBefore: #degrees #printOn: #sideOf: #fourNeighbors #hash #roundUpTo: #min: #min:max: #max #adaptToCollection:andSend: #quadrantOf: #crossProduct: #=} #nearestPointOnLineFrom:to: #bitShiftPoint: #* #guarded #insideTriangle:with:with: #grid: #truncateTo: #y #setR:degrees: #normal #directionToLineFrom:to: #truncated #nearestPointAlongLineFrom:to: #theta #scaleTo: #encodePostscriptOn: #> #asPoint #extent: #r #roundTo: #max: #interpolateTo:at: #triangleArea:with: #angleWith: #dotProduct: #isSelfEvaluating #'<=' #to:intersects:to: #'//' #isInsideCircle:with:with: #< #scaleFrom:to: #corner: #to:sideOf: #x #'='

#roundDownTo: #onLineFrom:to:within: #transposed #ceiling #angle #basicType #translateBy: #asFloatPoint \ #adaptToNumber:andSend: #abs #negated #octantOf: #asIntegerPoint #flipBy:centerAt: #scaleBy: #floor #onLineFrom:to:

#isPoint #reflectedAbout: #/ #dist: #asNonFractionalPoint #bearingToPoint: #reciprocal #rotateBy:centerAt: #rotateBy:about: #rounded #setX:setY: #squaredDistanceTo: #normalized #veryDeepCopyWith: #- #storeOn: #rect:

#deepCopy #isIntegerPoint #min #adhereTo: #adaptToString:andSend:)

Methods are public

Instance variables are protected

Single Inheritance

Object subclass: #Point

instanceVariableNames: "x y"
classVariableNames: ""
poolDictionaries: ""
category: 'Graphics-Primitives'
Classes are objects too

Point class

“Point class” is an anonymous class with only one instance: Point

Classes are objects too

Point class

“Point class” is an anonymous class with only one instance: Point

Class Parallel Inheritance

“Point class” is an anonymous class with only one instance: Point

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