Elements of Design - Class initialization

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Class Methods - Class Instance Variables

Classes (Packet class) represents class (Packet).
Class instance variables are instance variables of class
They should represent the state of class: number of
created instances, number of messages sent,
superclasses, subclasses....

Class methods represent class behavior: instance
creation, class initialization, counting the number of
instances....

If you weaken the second point: class state and
behavior can be used to define common properties.

Class Initialization

How do we know that all the class behavior has been
loaded?
At the end!

Automatically called by the system at load time or
explicitly by the programmer.
Used to initialize a classVariable, a pool dictionary or
class instance variables.
'Classname initialize' at the end of the saved files in
Squeak.

Example of class initialization

Magnitude subclass: #Date
instanceVariableNames: 'day year'
classVariableNames:
'DaysInMonth FirstDayOfMonth MonthNames
SecondsInDay WeekDayNames'
Date class>>initialize

"Initialize class variables representing the names of the months and
days and the number of seconds, days in each month, and first day of
each month."

MonthNames := #(January February March April May
June July August September October November December).
SecondInDay := 24 * 60 * 60.
DaysInMonth := #(31 28 31 30 31 30 31 30 31 31 30 31).
FirstDayOfMonth := #(1 32 60 91 121 152 182 213 244 274 305 335).
WeekDayNames := #(Monday Tuesday Wednesday Thursday Friday
Saturday Sunday)