

# Learning Ruby - 10

Exploiting Classes

# Ruby's Class Library

- **Array** - an ordered collection of objects
- **Bignum** - really big integer values
- **Binding** - remembering the context of some executable code
- **Class** - the grand-daddy of all new classes
- **Comparable** - a mixin that allows objects to be compared
- **Continuation** - allows for non-local returns from blocks

# More Ruby Classes

- **Dir** - working with directories and the underlying filesystem
- **Enumerable** - a mixin that allows for traversal, searching and sorting
- **Errno** - gives access to the OS's error codes
- **Exception** - lets your class raise and rescue exceptions
- **FalseClass** - is used to represent false (what else could it be used for?!?)
- **File** - allows for classes to access files within the filesystem

# Even More Ruby Classes

- **File::Stat** - access stuff about files
- **FileTest** - test certain things about files
- **Fixnum** - a native machine word interger
- **Float** - represents real numbers
- **GC** - for fiddling with garbage collection
- **Hash** - an collection of name/value pairs

# Yet More Ruby Classes

- **Integer** - whole numbers
- **IO** - input/output class
- **Kernel** - included in every class, lets you get at stuff
- **Marshal** - converts Ruby object to/from byte-streams
- **MatchData** - used with regexes
- **Math** - we all hate this one, don't we?
- **Method** - mucking about with object methods

# More? Here They Are ...

- **Module** - a collection of methods and constants
- **NilClass** - the class that implements nil
- **Numeric** - base class of **Integer**, **Fixnum** and **Bignum**
- **Object** - the grand-mammy of all classes in Ruby
- **ObjectSpace** - more interaction with the garbage collector
- **Proc** - binding blocks of code to local variables

# It Keeps On Coming ...

- **Process** - the manipulation of processes
- **Process::GID** - interacting with the underlying OS
- **Process::Status** - information on running/terminated processes
- **Process::Sys** - system call-level access to the OS environment
- **Process::UID** - not unlike **Process::GID**

# The End Is In Sight ...

- **Range** - supporting ranges
- **Regexp** - OO-style regex technology
- **Signal** - working with signals from the OS
- **String** - working with strings
- **Struct** - bundling attributes together in a convenient way
- **Struct::Tms** - information on process times
- **Symbol** - :support :for :those :cool :little :symbols



# I Lied - There's Still More

- **Thread** - a thread of program execution
- **ThreadGroup** - tracking a number of threads
- **Time** - working with dates and times
- **TrueClass** - is used to represent true (see **FalseClass**)
- **UnboundMethod** - not associating methods with objects (weird)

# More ... Ruby So Far

- Don't reinvent base classes - use the built-in's instead
- Inherit class behaviours using the < notation
- Refer to Chapter 27 of *The PickAxe* for an extensive discussion