

Class **Symbol** < Object

Symbol objects represent names inside the Ruby interpreter. They are generated using the `:name` or `:"arbitrary text"` literal syntax and by using the various `to_sym` methods. The same Symbol object will be created for a given name string for the duration of a program's execution, regardless of the context or meaning of that name. Symbols can be arbitrary sequences of characters. Like strings, a symbol literal containing any characters with the top-bit set will have an encoding determined by the encoding of the source file containing the definition.

1.9 /**1.9** /

Ruby 1.9 adds a lot of new string-like functionality to symbols.

Mixes in**Comparable:****1.9** /

`<`, `<=`, `==`, `>=`, `>`, `between?`

Class methods**all_symbols**

Symbol.all_symbols → array

Returns an array of all the symbols currently in Ruby's symbol table.

```
Symbol.all_symbols.size # => 1485
Symbol.all_symbols[1,20] # => [:"<IFUNC>", :"<CFUNC>", :respond_to?,
                              :"#__ThrowState__",
                              :"core#set_method_alias",
                              :"core#set_variable_alias",
                              :"core#undef_method",
                              :"core#define_method",
                              :"core#define_singleton_method",
                              :"core#set_postexe", :each, :length,
                              :lambda, :intern, :gets, :succ,
                              :method_missing, :send, :__send__,
                              :initialize]
```

Instance methods**<=>***sym* <=> *other_sym* → -1, 0, +1**1.9** /

Compares *sym* to *other_sym* after converting each to strings. `<=>` is the basis for the methods `<`, `<=`, `>`, `>=`, and `between?`, included from module `Comparable`. The method `Symbol#==` does not use `Comparable#==`.

```
:abcdef <=> :abcde # => 1
:abcdef <=> :abcdef # => 0
:abcdef <=> :abcdefg # => -1
:abcdef <=> :ABCDEF # => 1
```

==*sym* == *obj* → true or false**1.9** /

Returns true only if *sym* and *obj* are symbols with the same `object_id`.

```
:abcdef == :abcde # => false
:abcdef == :abcdef # => true
```

```

=~ sym =~ obj → int or nil

```

1.9 / Converts *sym* to a string and matches it against *obj*. with the same *object_id*.

```

:abcdef =~ /[aeiou]/ # => 3
:abcdef =~ /xx/ # => nil

```

```

[] sym[ int ] → string or nil
sym[ int, int ] → string or nil
sym[ range ] → string or nil
sym[ regexp ] → string or nil
sym[ regexp, int ] → string or nil
sym[ string ] → string or nil

```

1.9 / Converts *sym* to a string and then indexes it using the same parameters as `String#[]`.

```

:"hello there"[1] # => "e"
:"hello there"[1,3] # => "ell"
:"hello there"[1..3] # => "ell"
:"hello there"[1...3] # => "el"
:"hello there"[-3,2] # => "er"
:"hello there"[-4..-2] # => "her"
:"hello there"[-2..-4] # => ""
:"hello there"[/[aeiou](.)\1/] # => "ell"
:"hello there"[/[aeiou](.)\1/, 0] # => "ell"
:"hello there"[/[aeiou](.)\1/, 1] # => "l"
:"hello there"[/[aeiou](.)\1/, 2] # => nil
:"hello there"[/(..)e/] # => "the"
:"hello there"[/(..)e/, 1] # => "th"
:"hello there"["lo"] # => "lo"
:"hello there"["bye"] # => nil

```

```

capitalize sym.capitalize → symbol

```

1.9 / Returns a symbol with the first character of *sym* converted to uppercase and the remainder to lowercase.

```

:hello.capitalize # => :Hello
:"HELLO WORLD".capitalize # => :"Hello world"
:"123ABC".capitalize # => :"123abc"

```

```

casecmp sym.casecmp( other ) → -1, 0, +1, or nil

```

1.9 / Case-insensitive version of `Symbol#<=>`. Returns `nil` if *other* is not a symbol.

```

:abcdef.casecmp(:abcde) # => 1
:abcdef.casecmp(:abcdef) # => 0
:abcdef.casecmp(:ABCDEF) # => 0
:aBcDeF.casecmp(:abcdef) # => 0
:abcdef.casecmp(:abcdefg) # => -1
:abcdef.casecmp("abcdef") # => nil

```

downcase *sym.downcase* → *symbol*

1.9 / Returns a symbol with all the characters of *sym* converted to lowercase.

```

:Hello.downcase      # => :hello
:"HELLO WORLD".downcase # => :"hello world"
:"123ABC".downcase   # => :"123abc"

```

empty? *sym.empty* → true or false

1.9 / Returns true if the string representation of *sym* is empty.

```

:hello.empty? # => false
:"".empty?   # => true

```

encoding *sym.encoding* → *enc*

1.9 / Returns the encoding of *sym*.

```

# encoding: utf-8
:hello.encoding # => #<Encoding:US-ASCII>
:"δog".encoding # => #<Encoding:UTF-8>

```

id2name *sym.id2name* → *string*

Returns the string representation of *sym*.

```

:fred.id2name      # => "fred"
:"99 red balloons!".id2name # => "99 red balloons!"

```

inspect *sym.inspect* → *string*

Returns the representation of *sym* as a symbol literal.

```

:fred.inspect      # => :fred
:"99 red balloons!".inspect # => :"99 red balloons!"

```

intern *sym.intern* → *sym*

Synonym for `Symbol#to_sym`.

length *sym.length* → *int*

1.9 / Returns the number of characters in the string representation *sym*.

```

# encoding: utf-8
:dog.length # => 3
:δog.length # => 3

```

match *sym.match(regexp)* → *int* or *nil*

1.9 / Converts *self* to a string and then matches it against *regexp*. Unlike `String#match`, does not support blocks or non-regexp parameters.

```

:hello.match(/(.)\1/) # => 2
:hello.match(/ll/)   # => 2

```

next *sym.next* → *symbol*

1.9 / Synonym for `Symbol#succ`.

size *sym.size* → *int*

1.9 / Synonym for `Symbol#length`.

slice *sym.slice(int)* → *string* or *nil*
sym.slice(int, int) → *string* or *nil*
sym.slice(range) → *string* or *nil*
sym.slice(regex) → *string* or *nil*
sym.slice(match_string) → *string* or *nil*

1.9 / Synonym for `Symbol#[]`.

succ *sym.succ* → *symbol*

1.9 / Returns the successor to *sym* using the same rules as `String#succ`.

```
:abcd.succ      # => :abce
:THX1138.succ   # => :THX1139
:"<<koala>>".succ # => :"<<koalb>>"
:"1999zzz".succ # => : "2000aaa"
:ZZZ9999.succ   # => :AAAA0000
:"***".succ     # => : "***"
```

swapcase *sym.swapcase* → *symbol*

1.9 / Returns a symbol with the case of all the characters of *sym* swapped.

```
:Hello.swapcase # => :hELLO
:"123ABC".swapcase # => : "123abc"
```

to_proc *sym.to_proc* → *proc*

1.9 / Allows a symbol to be used when a block is expected. The symbol acts as a method invoked on each parameter to the block. See page 379 for more information.

```
%w{ant bee cat}.map(&:reverse) # => ["tna", "eeb", "tac"]
```

to_s *sym.to_s* → *string*

Synonym for `Symbol#id2name`.

to_sym *sym.to_sym* → *sym*

Symbols are symbol-like!

upcase *sym.upcase* → *symbol*

1.9 / Returns a symbol with of all the characters of *sym* in uppercase.

```
:Hello.upcase   # => :HELLO
:"123Abc".upcase # => : "123ABC"
```