

Regular Expressions Cheat Sheet

Metacharacters (must be escaped)

Symbol	Meaning
-----	-----
^	Start of string
\$	End of string
()	Grouping
< >	Word boundaries
.	Any character
* + ?	Quantifiers
[]	Character class
{ }	Repetition
\	Escape
	Alternation

Quantifiers

Symbol	Meaning
-----	-----
*	0 or more
+	1 or more
?	0 or 1
{3}	Exactly 3
{3,}	3 or more
{3,5}	3 to 5

Anchors

Symbol	Meaning
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^, \A	Start of string
\$, \Z	End of string
\b	Word boundary
\B	Not word boundary
\<, \>	Word boundaries

POSIX Classes

[:upper:]	Uppercase letters
[:lower:]	Lowercase letters
[:alpha:]	All letters
[:alnum:]	Letters and digits
[:digit:]	Digits
[:xdigit:]	Hex digits
[:punct:]	Punctuation
[:space:]	Space characters
[:word:]	Letters, digits, underscore

Character Classes

Symbol	Meaning
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\c	Control character
\s, \S	Whitespace / not whitespace
\d, \D	Digit / not digit
\w, \W	Word / not word
\x, \0	Hex / Octal digit

Special Characters

Symbol	Meaning
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\n	Newline
\r	Carriage return
\t	Tab
\v	Vertical tab
\f	Form feed
\xxx	Octal character
\xhh	Hex character

Pattern Modifiers

g	Global match
i	Case-insensitive
m	Multi-line
s	Dot matches newline
x	Allow whitespace/comments
e	Evaluate replacement
U	Ungreedy

Assertions

(?=...)	Lookahead
(?!...)	Negative lookahead
(?<=...)	Lookbehind
(?<!...)	Negative lookbehind
(?>...)	Atomic group
(?())	Conditional
(?#...)	Comment

Replacement Tokens

\$n	nth non-passive group
\$1, \$2	Match from group 1, 2
\$`	Before match
\$'	After match
\$+	Last match
&	Entire match

Sample Patterns

([A-Za-z0-9-]+)	Alphanumeric + hyphens
(\d{1,2}/\d{1,2}/\d{4})	Date (e.g. 21/3/2006)
((^\\s (?=\\. (jpg gif png)))\\.\\2)	Image extensions
(^[1-9]\$ ^[1-4][0-9]\$ ^50\$)	Number -150
(#?([A-Fa-f0-9]){3,6})	Hex color code
(?=.*\\d)(?=.*[a-z])(?=.*[A-Z])	Strong password
(\\w+@[a-zA-Z_]+?\\. [a-zA-Z]{2,6})	Email
(\\<(/?[^\>]+)\>)	HTML tags