

Anchors		Sample Patterns	
^	Start of line +	([A-Za-z0-9-]+)	Letters, numbers and hyphens
\A	Start of string +	(\d{1,2}\V\d{1,2}\V\d{4})	Date (e.g. 21/3/2006)
\$	End of line +	([^\s]+(?:\.(\jpg gif png)))\.\2	jpg, gif or png image
\Z	End of string +	(^[1-9]{1}\$ ^[1-4]{1}[0-9]{1}\$ ^50\$)	Any number from 1 to 50 inclusive
\b	Word boundary +	(#?([A-Fa-f0-9]){3}([A-Fa-f0-9]){3})?)	Valid hexadecimal colour code
\B	Not word boundary +	((?=\.*\d)(?=\.*[a-z])(?=\.*[A-Z]).{8,15})	8 to 15 character string with at least one upper case letter, one lower case letter, and one digit (useful for passwords).
\<	Start of word	(\w+@[a-zA-Z_]+?\.[a-zA-Z]{2,6})	Email addresses
\>	End of word	(\<(/?[^\>]+)\>)	HTML Tags

### Character Classes

\c	Control character
\s	White space
\S	Not white space
\d	Digit
\D	Not digit
\w	Word
\W	Not word
\xhh	Hexadecimal character hh
\Oxxx	Octal character xxx

### POSIX Character Classes

[ :upper: ]	Upper case letters
[ :lower: ]	Lower case letters
[ :alpha: ]	All letters
[ :alnum: ]	Digits and letters
[ :digit: ]	Digits
[ :xdigit: ]	Hexadecimal digits
[ :punct: ]	Punctuation
[ :blank: ]	Space and tab
[ :space: ]	Blank characters
[ :cntrl: ]	Control characters
[ :graph: ]	Printed characters
[ :print: ]	Printed characters and spaces
[ :word: ]	Digits, letters and underscore

### Assertions

?=	Lookahead assertion +
?!	Negative lookahead +
?<=	Lookbehind assertion +
?!= or ?<!	Negative lookbehind +
?>	Once-only Subexpression
?()	Condition [if then]
?()	Condition [if then else]
?#	Comment

**Note** Items marked + should work in most regular expression implementations.

**Note** These patterns are intended for reference purposes and have not been extensively tested. Please use with caution and test thoroughly before use.

### Quantifiers

*	0 or more +
*?	0 or more, ungreedy +
+	1 or more +
+?	1 or more, ungreedy +
?	0 or 1 +
??	0 or 1, ungreedy +
{3}	Exactly 3 +
{3,}	3 or more +
{3,5}	3, 4 or 5 +
{3,5}?	3, 4 or 5, ungreedy +

### Special Characters

\	Escape Character +
\n	New line +
\r	Carriage return +
\t	Tab +
\v	Vertical tab +
\f	Form feed +
\a	Alarm
[\b]	Backspace
\e	Escape
\N{name}	Named Character

### String Replacement (Backreferences)

\$n	nth non-passive group
\$2	"xyz" in /^(abc(xyz))\$/
\$1	"xyz" in /^(?:abc)(xyz)\$/
\$`	Before matched string
\$'	After matched string
\$\$	Last matched string
\$\$	Entire matched string
\$_	Entire input string
\$\$	Literal "\$"

### Ranges

.	Any character except new line (\n) +
(a b)	a or b +
(...)	Group +
(?:...)	Passive Group +
[abc]	Range (a or b or c) +
[^abc]	Not a or b or c +
[a-q]	Letter between a and q +
[A-Q]	Upper case letter + between A and Q +
[0-7]	Digit between 0 and 7 +
\n	nth group/subpattern +

**Note** Ranges are inclusive.

### Pattern Modifiers

g	Global match
i	Case-insensitive
m	Multiple lines
s	Treat string as single line
x	Allow comments and white space in pattern
e	Evaluate replacement
U	Ungreedy pattern

### Metacharacters (must be escaped)

^	[	.
\$	{	*
(	\	+
)		?
<	>	