regularexpressions

## Anchors

| | |
|---|---|
| ^ | Start of string |
| \A | Start of string |
| $ | End of string |
| \Z | End of string |
| \b | Word boundary |
| \B | Not word boundary |
| \< | Start of word |
| \> | End of word |

## Character Classes

| | |
|---|---|
| \c | Control character |
| \s | White space |
| \S | Not white space |
| \d | Digit |
| \D | Not digit |
| \w | Word |
| \W | Not word |
| \x | Hexadecimal digit |
| \O | Octal digit |

## POSIX

| | |
|---|---|
| [: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 |

*Available free from AddedBytes.com*

## Quantifiers

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

## Quantifier Modifiers

*"x" below represents a quantifier*

| | |
|---|---|
| x? | Ungreedy version of "x" |

## Escape Character

| | |
|---|---|
| \ | Escape Character |

## Metacharacters (must be escaped)

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

## Special Characters

| | |
|---|---|
| \n | New line |
| \r | Carriage return |
| \t | Tab |
| \v | Vertical tab |
| \f | Form feed |
| \xxx | Octal character xxx |
| \xhh | Hex character hh |

## Groups and 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 |

## 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 |

## Sample Patterns

| *Pattern* | *Will Match* |
|---|---|
| ([A-Za-z0-9-]+) | Letters, numbers and hyphens |
| (\d{1,2}\/\d{1,2}\/\d{4}) | Date (e.g. 21/3/2006) |
| ([^\s]+(?=\.(jpg\|gif\|png))\.\2) | jpg, gif or png image |
| (^[1-9]{1}$\|^[1-4]{1}[0-9]{1}$\|^50$) | Any number from 1 to 50 inclusive |
| (#?([A-Fa-f0-9]){3}(([A-Fa-f0-9]){3})?) | Valid hexadecimal colour code |
| ((?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{8,15}) | String with at least one upper case letter, one lower case letter, and one digit (useful for passwords). |
| (\w+@[a-zA-Z_]+?\.[a-zA-Z]{2,6}) | Email addresses |
| (\<(/?[^\>]+)\>) | HTML Tags |

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