

# .NET FRAMEWORK REGULAR EXPRESSIONS



## SINGLE CHARACTERS

Use	To match any character
[ <i>set</i> ]	In that set
[^ <i>set</i> ]	Not in that set
[ <i>a-z</i> ]	In the <i>a-z</i> range
[^ <i>a-z</i> ]	Not in the <i>a-z</i> range
.	Any except \n (new line)
\char	Escaped special character

## CONTROL CHARACTERS

Use	To match	Unicode
\t	Horizontal tab	\u0009
\v	Vertical tab	\u000B
\b	Backspace	\u0008
\e	Escape	\u001B
\r	Carriage return	\u000D
\f	Form feed	\u000C
\n	New line	\u000A
\a	Bell (alarm)	\u0007
\c char	ASCII control character	—

## NON-ASCII CODES

Use	To match character with
\octal	2-3 digit octal character code
\x hex	2-digit hex character code
\u hex	4-digit hex character code

## CHARACTER CLASSES

Use	To match character
\p{ctgry}	In that Unicode category or block
\P{ctgry}	Not in that Unicode category or block
\w	Word character
\W	Non-word character
\d	Decimal digit
\D	Not a decimal digit
\s	White-space character
\S	Non-white-space char

## QUANTIFIERS

Greedy	Lazy	Matches
*	*?	0 or more times
+	+?	1 or more times
?	??	0 or 1 time
{ <i>n</i> }	{ <i>n</i> }?	Exactly <i>n</i> times
{ <i>n</i> ,}	{ <i>n</i> ,}?	At least <i>n</i> times
{ <i>n</i> , <i>m</i> }	{ <i>n</i> , <i>m</i> }?	From <i>n</i> to <i>m</i> times

## ANCHORS

Use	To specify position
^	At start of string or line
\A	At start of string
\z	At end of string
\Z	At end (or before \n at end) of string
\$	At end (or before \n at end) of string or line
\G	Where previous match ended
\b	On word boundary
\B	Not on word boundary

## GROUPS

Use	To define
( <i>exp</i> )	Indexed group
(?<name> <i>exp</i> )	Named group
(?<name1-name2> <i>exp</i> )	Balancing group
(?: <i>exp</i> )	Noncapturing group
(?= <i>exp</i> )	Zero-width positive lookahead
(?! <i>exp</i> )	Zero-width negative lookahead
(?<= <i>exp</i> )	Zero-width positive lookbehind
(?<! <i>exp</i> )	Zero-width negative lookbehind
(?> <i>exp</i> )	Non-backtracking (greedy)

## INLINE OPTIONS

Option	Effect on match
i	Case-insensitive
m	Multiline mode
n	Explicit (named)
s	Single-line mode
x	Ignore white space

Use	To
(?imnsx-imnsx)	Set or disable the specified options
(?imnsx-imnsx:exp)	Set or disable the specified options within the expression

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## BACKREFERENCES