# RegExLib.com Regular Expression Cheat Sheet (.NET)

## Metacharacters Defined

| MChar | Definition |
|---|---|
| ^ | Start of a string. |
| $ | End of a string. |
| . | Any character (except \n newline) |
| \| | Alternation. |
| {...} | Explicit quantifier notation. |
| [...] | Explicit set of characters to match. |
| (...) | Logical grouping of part of an expression. |
| * | 0 or more of previous expression. |
| + | 1 or more of previous expression. |
| ? | 0 or 1 of previous expression; also forces minimal matching when an expression might match several strings within a search string. |
| \ | Preceding one of the above, it makes it a literal instead of a special character. Preceding a special matching character, see below. |

## Metacharacter Examples

| Pattern | Sample Matches |
|---|---|
| ^abc | abc, abcdefg, abc123, ... |
| abc$ | abc, endsinabc, 123abc, ... |
| a.c | abc, aac, acc, adc, aec, ... |
| bill\|ted | ted, bill |
| ab{2}c | abbc |
| a[bB]c | abc, aBc |
| (abc){2} | abcabc |
| ab*c | ac, abc, abbc, abbbc, ... |
| ab+c | abc, abbc, abbbc, ... |
| ab?c | ac, abc |
| a\sc | a c |

## Character Escapes http://tinyurl.com/5wm3wl

| Escaped Char | Description |
|---|---|
| ordinary characters | Characters other than . $ ^ { [ ( \| ) ] } * + ? \ match themselves. |
| \a | Matches a bell (alarm) \u0007. |
| \b | Matches a backspace \u0008 if in a []; otherwise matches a word boundary (between \w and \W characters). |
| \t | Matches a tab \u0009. |
| \r | Matches a carriage return \u000D. |
| \v | Matches a vertical tab \u000B. |
| \f | Matches a form feed \u000C. |
| \n | Matches a new line \u000A. |
| \e | Matches an escape \u001B. |
| \040 | Matches an ASCII character as octal (up to three digits); numbers with no leading zero are backreferences if they have only one digit or if they correspond to a capturing group number. (For more information, see Backreferences.) For example, the character \040 represents a space. |
| \x20 | Matches an ASCII character using hexadecimal representation (exactly two digits). |
| \cC | Matches an ASCII control character; for example \cC is control-C. |
| \u0020 | Matches a Unicode character using a hexadecimal representation (exactly four digits). |
| * | When followed by a character that is not recognized as an escaped character, matches that character. For example, ***** is the same as **\x2A**. |

## Character Classes http://tinyurl.com/5ck4ll

| Char Class | Description |
|---|---|
| . | Matches any character except \n. If modified by the Singleline option, a period character matches any character. For more information, see Regular Expression Options. |
| [aeiou] | Matches any single character included in the specified set of characters. |
| [^aeiou] | Matches any single character not in the specified set of characters. |
| [0-9a-fA-F] | Use of a hyphen (–) allows specification of contiguous character ranges. |
| \p{name} | Matches any character in the named character class specified by {name}. Supported names are Unicode groups and block ranges. For example, Ll, Nd, Z, IsGreek, IsBoxDrawing. |
| \P{name} | Matches text not included in groups and block ranges specified in {name}. |
| \w | Matches any word character. Equivalent to the Unicode character categories [\p{Ll}\p{Lu}\p{Lt}\p{Lo}\p{Nd}\p{Pc}]. If ECMAScript-compliant behavior is specified with the ECMAScript option, \w is equivalent to [a-zA-Z_0-9]. |
| \W | Matches any nonword character. Equivalent to the Unicode categories [^\p{Ll}\p{Lu}\p{Lt}\p{Lo}\p{Nd}\p{Pc}]. If ECMAScript-compliant behavior is specified with the ECMAScript option, \W is equivalent to [^a-zA-Z_0-9]. |
| \s | Matches any white-space character. Equivalent to the Unicode character categories [\f\n\r\t\v\x85\p{Z}]. If ECMAScript-compliant behavior is specified with the ECMAScript option, \s is equivalent to [ \f\n\r\t\v]. |
| \S | Matches any non-white-space character. Equivalent to the Unicode character categories [^\f\n\r\t\v\x85\p{Z}]. If ECMAScript-compliant behavior is specified with the ECMAScript option, \S is equivalent to [^ \f\n\r\t\v]. |
| \d | Matches any decimal digit. Equivalent to \p{Nd} for Unicode and [0-9] for non-Unicode, ECMAScript behavior. |
| \D | Matches any nondigit. Equivalent to \P{Nd} for Unicode and [^0-9] for non-Unicode, ECMAScript behavior. |