



Regular Expressions

This appendix contains information about how to use regular expressions.

How to Use Regular Expressions

Regular expressions are made up of normal characters and metacharacters. Normal characters include upper and lower case letters and numbers. Regular expression pattern matching can be performed with either a single character or a pattern of one or more characters within parentheses, called a character pattern. Metacharacters have special meanings, as described in [Table D-1](#).

Table D-1 *Pattern Matching Metacharacters*

Pattern Matching Metacharacters	Description	Example
*	Matches zero or more instances of the preceding character or character pattern.	The pattern 'goo*' matches 'my godness', 'my goodness', and 'my goodness', but not 'my gdness'.
+	Matches one or more instances of the preceding character or character pattern.	The pattern 'goo+' matches 'my goodness' and 'my goodness', but not 'my godness'.
?	Matches zero or one instance of the preceding character or character pattern.	The pattern 'goo?' matches 'my godness' and 'my goodness', but not 'my goodness' or 'my gdness'.
\$	Matches the end of the string.	The pattern 'end\$' matches 'the end', but not 'the ending'.
^	Matches the beginning of the string.	The pattern '^severity' matches 'severity level 5', but not 'The severity is 5'.
.	Matches any single character.	The pattern 'b.at' matches 'baat', 'bBat', and 'b4at', but not 'bat' or 'bB4at'.
[abcd]	Matches any characters in the square brackets or in the range of characters separated by a hyphen (-), such as [0-9].	^[A-Za-z]+\$ matches any string that contains only upper or lower case letter characters.

Table D-1 Pattern Matching Metacharacters (continued)

Pattern Matching Metacharacters	Description	Example
[^abcd]	Matches any character except those in the square brackets or in the range of characters separated by a hyphen (-), such as [0-9].	[^0-9] matches any string that does not contain any numeric characters.
()	Indicates that the characters within the parentheses should be treated as a character pattern.	A(boo)+Z matches 'AbooZ', 'AboobooZ', and 'AboobooZ', but not 'AboZ' or 'AboooZ'.
	Matches one of the characters or character patterns on either side of the vertical bar.	A(B C)D matches 'ABD' and 'ACD', but not 'AD', 'ABCD', 'ABBD', or 'ACCD'.
\	The backslash escape character indicates that the metacharacter following should be treated as a regular character. The metacharacters in this table require a backslash before them if they appear in a regular expression.	To match an opening square bracket, followed by any digits or spaces, followed by a closed bracket, use the regular expression \[[0-9]*\].