

## Unix Regular Expression Language

### Basic Regular Expression Metacharacters

.	any single character
<i>[set-of-characters]</i>	any single character in the <i>set-of-characters</i>
<i>[^set-of-characters]</i>	any single character <b>not</b> in the <i>set-of-characters</i>
<i>regular-expression*</i>	zero or more occurrences of <i>regular-expression</i>
<i>^</i>	the beginning of a line or field
<i>\$</i>	the end of a line or field
<i>regular-expression<sub>1</sub> regular-expression<sub>2</sub></i>	<i>regular-expression<sub>1</sub></i> followed by <i>regular-expression<sub>2</sub></i>
<i>\meta-character</i>	<i>meta-character</i> as a literal
<i>other-character</i>	<i>other-character</i> as a literal

### Extended Regular Expression Metacharacters

**egrep, awk, lex** also understand:

<i>regular-expression+</i>	one or more occurrences of <i>regular-expression</i>
<i>regular-expression?</i>	zero or one occurrence of <i>regular-expression</i>
<i>regular-expression<sub>1</sub> regular-expression<sub>2</sub></i>	<i>regular-expression<sub>1</sub></i> or <i>regular-expression<sub>2</sub></i>
<i>(regular-expression)</i>	groups <i>regular-expression</i> for *, +, ? or

### Special Regular Expression Metacharacters Requiring Backslashes

**ex, vi, Berkeley grep, egrep** understand:

<i>\&lt;</i>	beginning of word
<i>\&gt;</i>	end of word

**ed, sed, ex, expr** understand:

<i>\(regular-expression\)</i>	tagged <i>regular-expression</i>
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**ed, sed, ex** understand:

<i>\digit</i>	refers back to <i>digit<sup>th</sup></i> tagged regular expression
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### New Posix Repeat Constructs

POSIX compliant programs understand:

<i>regular-expression\{n\}</i>	<i>n</i> occurrences of <i>regular-expression</i>
<i>regular-expression\{,n\}</i>	up to <i>n</i> occurrences of <i>regular-expression</i>
<i>regular-expression\{n,\}</i>	<i>n</i> or more occurrences of <i>regular-expression</i>
<i>regular-expression\{m,n\}</i>	<i>m</i> to <i>n</i> occurrences of <i>regular-expression</i>

With Extended Regular Expressions Posix repeats do not use backslashes.