

Regexator

User Guide

Version 1.3

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1 INTRODUCTION

Regexator is a development environment for regular expressions on the basis of .NET regex engine from [System.Text.RegularExpressions](#) namespace. It provides functionality for regular expressions development, tuning and storing.

System Requirements

- Windows XP/Vista/7/8
- .NET Framework 4 Client Profile or higher

Contact

- Website: <http://www.regexator.net>
- Email: support@regexator.net

1.1 Main Window

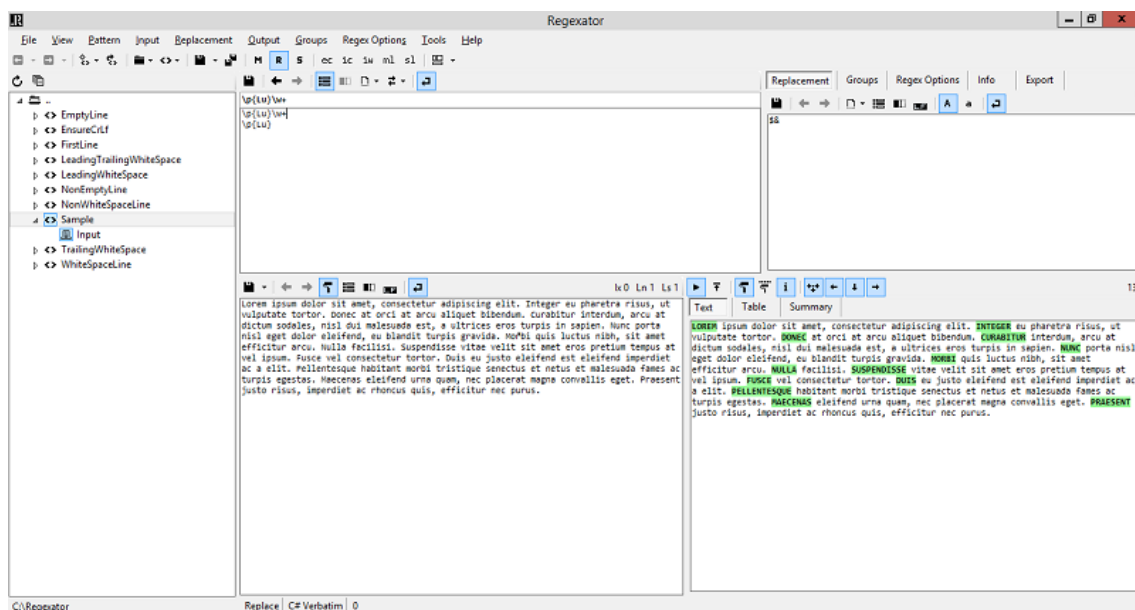


Image 1 Main window (vertical layout)

Application Element	Related .NET Element
Pattern Editor	pattern parameter in Match , Replace or Split method
Replacement Editor	replacement parameter in Replace method
Regex Options	RegexOptions enumeration members
Groups	GetGroupNames method return value
Input Editor	input parameter in Match, Replace or Split method
Output	Match, Replace or Split method return value

Table 1 Application elements

1.2 Regex Categories

Various application elements, such as [snippets](#) or [guide](#) items are grouped by following categories:

- Alternation Constructs
- Anchors
- Backreference Constructs
- General Categories
- Grouping Constructs
- Character Classes
- Character Escapes
- Miscellaneous
- Named Blocks
- Options
- Quantifiers
- Substitutions

1.3 Switcher

You can use Ctrl + (Shift) + Tab hotkey to move forward (backward) through the following main window elements:

- Pattern
- Input
- Replacement
- Output Tree
- Output Text
- Output Table
- Output Summary
- Groups
- Regex Options
- Project Info
- Project Explorer

1.4 Tab Reordering

Pattern tabs and output tabs can be reordered by dragging a tab with the left mouse button.

2 PROJECT EXPLORER

Project explorer serves as an interface between the application and the file system. It allows user to access project and input files.

2.1 Project

Project is a core application element. It is represented by a file with "rgx" extension and defined XML structure (see [Project XML Schema](#)).

2.2 Input Text

Input text can be stored within the project file or it can be stored within a separate file and only a reference to that file is stored within the project file.

2.2.1 Encoding

Each input file is loaded and saved with a certain encoding. Default and recommended encoding is UTF-8 which should be sufficient for working with most inputs. However, you can specify other encoding to be used with your input file (Main Menu → Input → Encoding).

New Input Encoding

A newly created input will have the encoding specified in Options → Input Default Values → Encoding.

File Loading

The application automatically recognizes UTF-8, little-endian Unicode, and big-endian Unicode if the input file starts with the appropriate BOM (byte order marks). Otherwise, input encoding is used.

File Saving

The input file is always saved with the input encoding.

2.3 Renaming

Project Renaming

Project file extension will always be "rgx", regardless of which extension you specify.

Input Renaming

When you are renaming an input, there are three possible options:

- If the extension is specified then new file name will have the specified extension.
- If the extension is not specified, then new file name will have the same extension as it had before renaming.
- If the extension is not specified and new input name ends with ".", then new file name will have no extension.

2.4 Project Explorer Hotkeys

Keys	Description
Enter	Open item
F7	Open item or add new directory
F2	Rename item
Del	Delete item
Ctrl + Del	Remove input from project
Ctrl + Shift + A	Add new item
Ctrl + D	Add existing item

Table 2 Project explorer hotkeys

3 TEXT EDITOR

The application contains three a text editors:

- Pattern Editor
- Replacement Editor
- Input Editor

Feature	Pattern	Replacement	Input
Selection Only	✓	✓	✓
Current Line Only	✓	✓	✓
New Line Mode	linefeed	✓	✓
Export/Import	✓	✓	✓
Snippets	✓	✓	-
Undo/Redo	✓	✓	see chapter

Table 3 Text editor features

3.1 Current Text

Application always evaluates input, pattern and replacement current text. Current text can be all text contained in the text editor or there are two special modes that define current text in a different way: "Current Line Only" and "Selection Only".

3.1.1 Current Line Only

- Current text is current line text only.
- This mode has precedence over "Selection Only" mode.
- Assigned hotkey for switching this mode is Ctrl + R.

3.1.2 Selection Only

- If there is a selected text, current text is selected text. Otherwise, current text is all text.
- This mode is not available when "Current Line Only" mode is turned on.
- Assigned hotkey for switching this mode is Ctrl + T.

Current line

Current line is the line where a cursor position is located.

Cursor Position

If there is a selected text, cursor position is the position where the selection starts.

3.2 Current Line Box

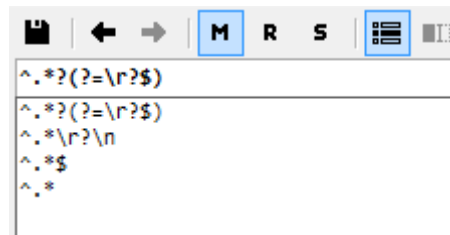


Image 2 Current line box

Current line box displays current line text. It is read-only and visible only when "Current Line Only" mode is turned on. When current line box is clicked with left mouse button, corresponding text editor is focused and entire current line text is selected.

3.2.1 Current Line Box Menu

Include New Line

Current line text can include new line character(s) (depending on the new line mode).

This option is available for input editor and replacement editor.

Cut

Cuts current line text to the system Clipboard.

Copy

Copies current line text to the system Clipboard.

Duplicate

Inserts a copy of the current line below the current line.

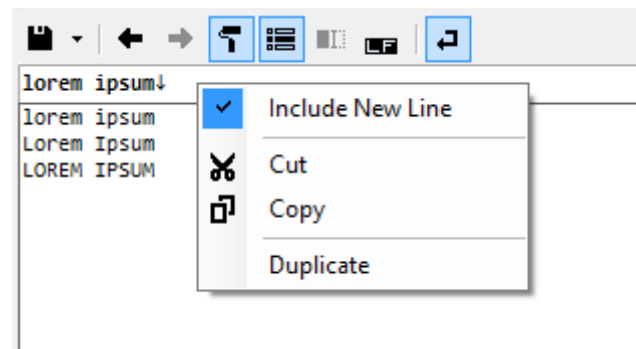


Image 3 Current line box menu

3.3 Select Current Line

Entire current line will be selected when current line box is clicked with left mouse button.

When a pattern, a replacement or an input is loaded from a file and "Current Line Only" mode is turned on, entire current line can be selected. This option can be set through options (Options → Text Editor → Select entire current line after load).

3.4 New Line Mode

You can decide which new line characters are used, when a text is evaluated by the regex engine.

- Linefeed only

- Carriage return and linefeed

This feature is available in input and replacement editors.

3.5 Export/Import

Export/import feature serves as an interface between text editor and language code (C# or Visual Basic).

3.5.1 Export Text

Current text is exported to the Clipboard. You can then use standard paste operation (Ctrl + V) to insert exported text into a target location (usually language source code).

Export Mode

	New Line	Concatenation Operator	Multiline
C#	'\n'	+	
C# Verbatim	'\n'	+	✓
Visual Basic	vbLf	+	✓

Table 4 Export Mode

Multiline

Multiline mode specifies multiline string literal.

3.5.2 Export Tab

Export tab displays language string literal created from pattern current text.

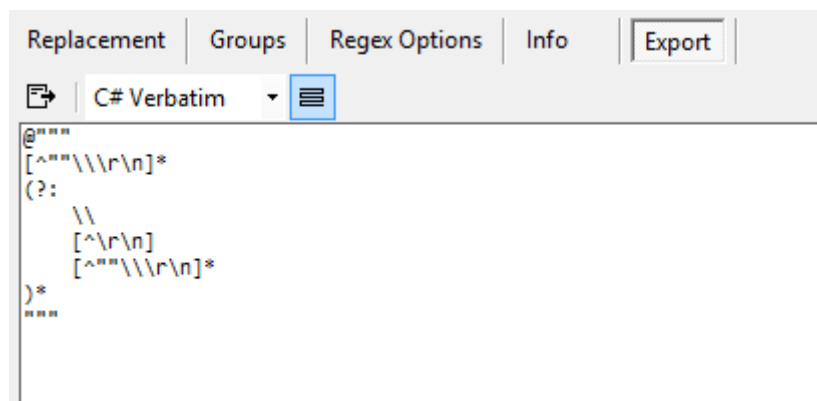


Image 4 Export Tab


Icon	Command	Comment
	Export	Copy all text to the Clipboard
	Languages	C# or Visual Basic
	New Line	Lf, CrLf or Environment.NewLine
	Concatenation Operator Position	Start or End
	Concatenation Operator	"+" or "&" (Visual Basic only)
@	Verbatim	Verbatim String (C# only)

Table 5 Export toolbar items

3.5.3 Import Text

- This feature imports text (usually a part of language source code) from the Clipboard, where it has been put before using standard copy operation (Ctrl + C).
- First constant-expression of string type consisting of string constants joined by language concatenation operator is imported.
- Comments as well as the text located before and after first string constant expression are ignored.

Recognizable String Constants in C#

- Regular string literal in quotation marks (including escape sequences)
- Character literal in apostrophes (including escape sequences)
- Character "@" followed by verbatim string literal in quotation marks
- String constant [Environment.NewLine](#)

Recognizable String Constants in Visual Basic

- Visual Basic string literal in quotation marks
- Visual Basic character literal i.e. character in quotation marks followed by "c"
- All constants from class [ControlChars](#) (and corresponding constants starting with "vb")
- [Chr](#) and [ChrW](#) functions with numeric literal parameter.
- String constant [Environment.NewLine](#)

3.6 Text Editor Hotkeys

Keys	Description
Ctrl + X	Cut (Cut entire line)
Ctrl + C	Copy (Copy entire line)
Ctrl + V	Insert
Ctrl + A	Select All
Ctrl + P	Print
Ctrl + U	Set selected text to lower-case
Ctrl + Shift + U	Set selected text to upper-case
Ctrl+Alt+0	Reset zoom to 100%

Table 6 Text editor hotkeys

"Cut entire line" and "copy entire line" hotkeys are available when there is no selected text and are disabled during "Selection Only" Mode.

4 PATTERN EDITOR

Pattern editor is used to create and edit pattern text.

4.1 Toolbar







Icon	Command
	Save
	Current Line Only
	Selection Only
	Favorite Snippets
	Favorite Characters
	Export/Import

Table 7 Pattern editor toolbar commands

Tip

Use character escape `"/t"`, if you want to use tab character in your pattern (tab key inserts 1-4 spaces).

4.2 Save

Following items will be saved to the project file:

- Pattern Text
- Evaluation Mode
- Regex Options
- Pattern Options
- Current Line

4.3 Comment/Uncomment

Comment/Uncomment feature is available either through context menu or using a hotkey.

Comment Selected Lines

- `"#"` character is added to the beginning of the lines that are fully or partially selected.
- Assigned hotkey is Ctrl + K, Ctrl + C.

Uncomment Selected Lines

- `"#"` character is removed from the beginning of the lines that are fully or partially selected. `"#"` character can be preceded by one or more whitespace characters.
- Assigned hotkey is Ctrl + K, Ctrl + U.

4.4 Escape/Unescape

Pattern editor context menu offers commands for escaping/unescaping selected text. These commands use .NET [Escape](#) and [Unescape](#) methods from Regex class.

Note

Unescape command may fail when processing certain text. See method definition for detailed explanation.

4.5 Pattern Editor Hotkeys

Keys	Description
Ctrl + R	Turn "Current Line Only" mode on/off
Ctrl + T	Turn "Selection Only" mode on/off
Ctrl + S	Save project
Ctrl + Q	List snippets by title
Ctrl + Space	List snippets by title
Ctrl + Shift + Q	List snippets by code
Ctrl + W	List characters by title
Ctrl + Shift + W	List characters by value
Ctrl + E	List recent snippets/characters by title
Ctrl + Shift + E	List recent snippets/characters by value
Ctrl + B	Insert last inserted snippet
Ctrl + Shift + B	Insert last inserted code
Ctrl + K, Ctrl + C	Comment selected lines
Ctrl + K, Ctrl + U	Uncomment selected lines
Ctrl + Shift + C	Export selected text using default mode
Ctrl + Shift + V	Import selected text using default mode
Alt + Up	Move selected text one line up
Alt + Down	Move selected text one line down

Table 8 Pattern editor hotkeys

5 REGEX OPTIONS

Regex options list displays members from [RegexOptions](#) enumeration (except RegexOptions.None):

Value	Description	Inline Character
Compiled	Compile the regular expression to an assembly.	
CultureInvariant	Ignore cultural differences between languages.	
ECMAScript	Enable ECMAScript-compliant behavior for the expression.	
ExplicitCapture	Do not capture unnamed groups.	n
IgnoreCase	Use case-insensitive matching.	i
IgnorePatternWhitespace	Exclude unescaped white-space from the pattern and enable comments after a number sign (#).	x
Multiline	^ and \$ match the beginning and end of each line (instead of the beginning and end of the input string).	m
None	Use default behavior.	
RightToLeft	Search moves from right to left instead of from left to right.	
Singleline	The period (.) matches every character (instead of every character except \n).	s

Table 9 Regex options values

You can toggle multiple options at once using following commands:

- Set All
- Set None

Note

For a better readability, single white-space character is added before each upper-cased letter. It means that "IgnorePatternWhitespace" is displayed as "Ignore Pattern Whitespace"

5.1 Visibility

You can hide each option using context menu. When a particular option is set as hidden, it is displayed only when required by currently open project.

Following options are visible by default:

- IgnoreCase
- Multiline
- ExplicitCapture
- Singleline
- IgnorePatternWhitespace

5.2 Columns

Column	Comment	Optional
Is Set	True/false	
Name	Option name	
Hotkey Number	see hotkeys	✓
Description	Option description	✓

Table 10 Regex options columns

5.3 Regex Options Hotkeys

Keys	Description
Enter or Space	<p>If one options is selected:</p> <ul style="list-style-type: none">• Toggle selected option. <p>If many options are selected:</p> <ul style="list-style-type: none">• When all selected options are set, toggle all selected options.• Otherwise, set all selected options.
Ctrl + Shift + 1-9	Toggle option by position in the list
Ctrl + Shift + ~	Set all or none regex options

Table 11 Regex options hotkeys

6 GROUPS

Groups list displays groups that have been parsed by the regex engine. Groups are obtained using .NET [GetGroupNames](#) method from Regex class.

Match Mode

In match mode, you can customize output using following features:

- Toggle particular group.
- Toggle multiple groups at once using following commands:
 - Set Selected Only
 - Set All But Selected
 - Set All
- Sort groups by name or index by clicking column header.

6.1 Groups Hotkeys

Keys	Description
Enter or Space	If one group is selected: <ul style="list-style-type: none">• Toggle selected group. If many groups are selected: <ul style="list-style-type: none">• When all selected groups are set, toggle all selected groups.• Otherwise, set all selected groups.
Ctrl + 0-9	Toggle group by index
Ctrl + ~	Toggle group "0"

Table 12 Groups hotkeys

7 REPLACEMENT EDITOR

Replacement editor is used to create and edit replacement text. It is relevant in replace mode only.

7.1 Toolbar






Icon	Command	Comment
	Save	
	Snippets	"Substitutions" category only
	Current Line Only	
	Selection Only	
	New Line Mode	

Table 13 Replacement editor toolbar commands

7.2 Save

Following items will be saved to the project file:

- Replacement Text
- Replacement Options
- New Line Mode
- Current Line

7.3 Replacement Editor Hotkeys

Keys	Description
Ctrl + R	Turn "Current Line Only" mode on/off
Ctrl + T	Turn "Selection Only" mode on/off
Ctrl + Q	List snippets by title
Ctrl + Space	List snippets by title
Ctrl + Shift + Q	List snippets by code
Ctrl + W	List characters by title
Ctrl + Shift + W	List characters by value
Ctrl + E	List recent snippets/characters by title
Ctrl + Shift + E	List recent snippets/characters by value
Ctrl + B	Insert last inserted snippet
Ctrl + Shift + B	Insert last inserted code
Ctrl + Shift + N	Change new line
Ctrl + Shift + C	Export selected text using default mode
Ctrl + Shift + V	Import selected text using default mode
Alt + Up	Move selected text one line up
Alt + Down	Move selected text one line down

Table 14 Replacement editor hotkeys

8 PROJECT INFO EDITOR

Project info editor is used to provide additional information about the project. You can specify following properties:

- Title
- Author
- Description
- Version

9 INPUT EDITOR

Input editor is used to create and edit input text.

9.1 Toolbar






Icon	Command	Comment
	Save	
	Highlight	Not available when undo/redo is turned on
	Current Line Only	
	Selection Only	
	New Line Mode	

Table 15 Input editor toolbar commands

9.2 Save

Save

Text will be saved to the input file and following items will be saved to the project file:

- Input Options
- Encoding
- New Line Mode
- Current Line

Save Text

Input text is saved to the project file or to the input file.

Save As

New input is created using values from currently open input. Input (including text) is saved to the project file.

Save As File

New input is created using values from currently open input. Input text is saved to a newly created input file and other input data are saved to the project file.

9.3 Go To

Use "Go To" command to move from a cursor position to the first, previous, next and last item. A cursor is moved to the start index of the desired item. If highlighting is turned on, item is highlighted.

Note

- In case of multiple items starting at the same position, only one of these items will be selected using "Go To" command.
- "Go To" command is disabled when "Selection Only" mode is turned on and input editor contains selected text at the same time.

9.3.1 Linkage

When "Go To" command successfully selects desired item, corresponding item is also selected in the output tree, text and table.

9.4 Input Info

Value	Abbr.	Comment
Cursor Position (Index)	Ix	When "Current Line Only" mode is turned on, cursor position is calculated from the beginning the current line. Numbered from 0.
Current Line Number	Ln	Numbered from 1.
Lines Count	Ls	Total number of lines in the entire input text.

Table 16 Index and line info

9.5 Input Editor Hotkeys

Keys	Description
Ctrl + S	Save input
Ctrl + R	Turn "Current Line Only" mode on/off
Ctrl + T	Turn "Selection Only" mode on/off
Alt + Shift + Left	Go to first item
Alt + Left	Go to previous item
Alt + Right	Go to next item
Alt + Shift + Right	Go to last item
Ctrl + Shift + N	Change new line
Ctrl + Shift + C	Export selected text using default mode
Ctrl + Shift + V	Import selected text using default mode
Alt + Up	Move selected text one line up
Alt + Down	Move selected text one line down

Table 17 Input editor hotkeys

10 OUTPUT

10.1 Toolbar

Icon	Command
	Output On/Off
	Limit Output Items
	Highlight
	Info
	Toggle Symbols
	Symbols

Table 18 Output toolbar commands

10.1.1 Output On/Off

Entire output can be turned off using this command. Assigned hotkey is Alt + F2.

10.1.2 Limit Output Items

Maximum number of items displayed in the output can be managed using this feature. Limit default value is 10 000 and can be changed (Options → Output → Output Items Limit). When total number of matches (items) returned by the engine is greater than a limit, plus symbol is displayed in the root node.

10.1.3 Info

Info feature allows displaying of additional metadata in the output text and table.

Item	Abbr.	Comment
Match number	M	numbered from 0
Group name	G	
Capture number	C	numbered from 0
Value index	I	
Value length	L	

Table 19 Info items (match mode)

Item	Abbr.	Comment
Value index	MI	table only
Value length	ML	table only
Result value index	RI	table only
Result value length	RL	table only

Table 20 Info items (replace mode)

Item	Abbr.	Comment
Split item number	S	numbered from 0
Captured item group name	G	
Item number	N	table only, numbered from 0
Value index	I	
Value length	L	

Table 21 Info items (split mode)

Text

Mode	With Info	Without Info
Match	M:0 G:0 C:0 I:0 L:8 captured M:1 G:0 C:0 I:9 L:4 text	captured text
Split	S:0 I:0 L:8 captured G:1 I:8 L:1 S:1 I:9 L:4 text	captured text

Table 22 Info items (output text)

Table

Mode	With Info							Without Info		
Match	#	M	G	C	I	L	Value	#	Value	
	0	0	0	0	0	8	captured	0	captured	
	1	1	0	0	9	4	text	1	text	
Replace	#	MI	ML	Match		RI	RL	Result		
	0	0	8	captured		0	10	(captured)		
	1	9	4	text		11	6	(text)		
Split	#	S/G	N	I	L	Value		#	Value	
	0	S	0	0	8	captured		0	captured	
	1	G	1	8	1			1		
	2	S	1	9	4	text		2	text	

Table 23 Info items (output table)

10.1.4 Toggle Symbols

If all symbols are enabled, disables all symbols. Otherwise, enables all symbols.

10.1.5 SymbolsCarriage Return Symbol

- Each occurrence of the carriage return character is replaced with a substitute symbol.

Linefeed Symbol

- Each occurrence of the linefeed character is replaced with a substitute symbol.

Tab Symbol

- Each occurrence of the carriage return symbol is replaced with a substitute symbol.

10.2 Output TextMatch Mode

In match mode, each capture is placed on the new line. Optionally, first line of each capture can be preceded by relevant metadata (info).

```

M:0 G:0 C:0 I: 1 L:20 capture_1 capture_2
  G:1 C:0 I: 1 L:10 capture_1
    C:1 I:11 L:10 capture_2
M:1 G:0 C:0 I:22 L:19 capture_3 capture_4
  G:1 C:0 I:22 L:10 capture_3
    C:1 I:32 L: 9 capture_4

```

Image 5 Output text with info (match mode)

Note

Match info and group info is displayed only at the first line of the corresponding text block. This is default behavior and it can be changed (Options → Output → Omit repeated info).

Replace Mode

In replace mode, output text displays [Replace](#) method return value.

Split Mode

In split mode, each split item or captured item is placed on the new line. Optionally, first line of each item can be preceded by relevant metadata (info).

```
S:0 I: 0 L:9 capture_1
G:1 I: 9 L:2 ,
S:1 I:11 L:9 capture_2
G:1 I:20 L:2 ,
S:2 I:22 L:9 capture_3
G:1 I:31 L:2 ,
S:3 I:33 L:9 capture_4
```

Image 6 Output text with info (split mode)

10.2.1 Highlight

When a current text block changes and highlighting is turned on, item text and info text is highlighted.

Text Block

- In match mode and split mode, text block consists of captured text and info text. In replace mode, text block consists of result text and a text to the beginning of the next result (or the end the entire text).
- Current text block is a text block where a cursor position is located.

10.2.2 Go To

You can use "Go To" command to move from a cursor position to the first, previous, next and last item. A cursor is moved to the start of the desired item. If highlighting is turned on, item is highlighted.

10.2.3 Linkage

When an item is selected using "Go To" command or when current text block changes, corresponding item is selected in the input editor, output tree and output table.

10.2.4 Output Text Hotkeys

Keys	Description
Alt + Shift + Left	Go to first item
Alt + Left	Go to previous item
Alt + Right	Go to next item
Alt + Shift + Right	Go to last item

Table 24 Output text hotkeys

10.3 Output Table

Wrap Text

- Text in each table cell will be wrapped.
- It is not guaranteed that text will be wrapped according to new lines.

No Capture Symbol

- A Group that has no capture will be displayed with a substitute symbol.
- This option is relevant only for group layout in match mode.

Copy Unique Values

- Copies unique values of a particular table column to the system Clipboard. This command is available from column context menu.

10.3.1 Match Mode

10.3.1.1 Group Layout

In this layout, each column represents a group and each row represents a match.

Column	Value	Comment
#	Match number	numbered from 0
<i>group_name</i>	Group value (last capture value)	one or more columns
<i>group_name capture_count</i> captures	A number of group captures	one or more columns

Table 25 Table columns (group layout)

Note

Column containing capture count for group "0" is omitted, since its value is always equal to 1.

Asterisk Symbol

When a number of captures for a particular group differs from 1 in any match, asterisk symbol is displayed in the header of a column displaying a number of captures.

10.3.1.2 Value Layout

In this layout, columns represent metadata (optional) and a capture value, and each row represents a capture.

Column	Value	Info	Comment
#	Item number		numbered from 0
M	Match number	✓	numbered from 0
G	Group name	✓	
C	Capture number	✓	numbered from 0
I	Capture index	✓	
L	Capture length	✓	
Value	Capture value		

Table 26 Table columns (value layout)

10.3.2 Replace Mode

Column	Value	Info	Comment
#	Match number		numbered from 0
MI	Match index	✓	
ML	Match length	✓	
Match	Match value		
RI	Result index	✓	
RL	Result length	✓	
Result	Result value		

Table 27 Table columns (replace mode)

10.3.3 Split Mode

Column	Value	Info	Comment
#	Item number		numbered from 0
S/G	S or G	✓	S – split item, G – captured item
N	Split number or group name	✓	split number is numbered from 0
I	Index	✓	
L	Length	✓	
Value	Value		

Table 28 Table columns (split mode)

10.4 Output Summary

Summary tab summarizes all relevant project data into a single text.

10.4.1 Summary Elements

Element	Value	Omit If Empty	Value on a New Line
Title	Project title	✓	
Author	Project author	✓	
Description	Project description	✓	
Mode	Match, Replace or Split		
Options	Regex options		
Pattern	Pattern current text		✓
Groups	Group names		
Replacement	Replacement current text (replace mode only)		✓
Input	Input current text		✓
Output	Output text		✓

Table 29 Summary elements

Omit If Empty

Element is omitted if its value is equal to an empty string.

Value on a New Line

Element value is placed on a new line.

10.4.2 Output Summary Hotkeys

Keys	Description
Alt + Shift + Left	Go to first element
Alt + Left	Go to previous element
Alt + Right	Go to next element
Alt + Shift + Right	Go to last element

Table 30 Output summary hotkeys

11 SNIPPETS

A snippet represents a piece of code. It can be a code that is frequently used or it can be a code that hard to type by hand. Use snippets to develop code faster, with better readability and maintainability.

How to Access Snippets

- [Snippet list](#)
- Context menu
- Toolbar drop-down button
 - In pattern editor, it displays favorite snippets.
 - In replacement editor, it displays snippets from "substitutions" category.

Snippet Insertion Process

- A snippet to insert is selected.
- If the snippet contains one or more literals, [literal editor](#) is displayed.
 - A user has to process and confirm all literals (using Enter or Tab).
 - The process can be cancelled during literal editing (Esc).
- The snippet is inserted into code.
 - If there is a selected text, insertion depends on the snippet kind. If the snippet kind is "Surround", current text selection is used in place of literal (placeholder) %selected%. Otherwise, selected text is replaced with snippet text.
 - If there is no selected text, snippet is inserted at the cursor position.

Snippet File

Each snippet is stored within a snippet file. Snippet file has "rgxs" extension and defined XML structure (see [Snippet XML Schema](#)).

11.1 Favorite Snippets

- Favorite snippets represent the most used snippets.
- Favorite snippets have bold font when displayed in the snippet list.


How to Access Favorite Snippets

- [Snippet list](#)
- Toolbar drop-down button (pattern editor only)
- Context menu item "Favorite Snippets"

How to Mark Snippet as Favorite

- [Snippet list](#)
 - Context menu item "Favorite".
 - Use hotkey Ctrl + D.
- Guide form → Tab "Snippets" → Column "Favorite" (labeled with star symbol).

11.2 Extensible Snippets

- Extensible snippet virtually consists of two snippets: default and extended snippet.
- Extensible snippet can be recognized by  icon

Kind	Default Snippet	Extended Snippet	Comment
Format	(?<name>%selected%)	(?<name> %selected%)	Meaning is the same if IgnorePatternWhitespace option is set
Negative	\w	\W	

Table 31 Extended snippets

How to Insert Extended Snippet

- Use snippet list context menu item "Insert Extended"
- Press and hold shift key when inserting a snippet from snippet list or context menu
- Use right mouse button when inserting a snippet from context menu

11.3 Snippet Literal

Snippet literal can be recognized by a token "%id%" which is put in a snippet code. During snippet insertion process the token is replaced with a value provided by a user.

11.3.1 Reserved Tokens

There are two reserved tokens: "%selected%" and "%end%". These two tokens cannot be used to identify a snippet literal but can be optionally placed into a snippet code.

Selected Token

When inserting a snippet, token "%selected%" will be replaced with current text selection.

End Token

Token "%end%" represents a position where a cursor will be located, after a snippet is inserted.

11.4 User Snippets

You can specify a directory to be searched for a snippet files (Options → Snippets → Directories). A directory will be searched recursively (all subdirectories). You can drag and drop a directory to the directory list.

Errors

Any error that occurs during loading a snippet from a file can be examined using Options → Snippets → View Error Log button. The button is not visible when no error occurred.

11.5 Snippet UI Elements

In addition to standard UI elements used to access snippets (toolbar button, context menu), there are UI elements designed exclusively for working with snippets:

- [Snippet List](#)
- [Literal Editor](#)

11.5.1 Snippet List

Snippet list is available in pattern editor and replacement editor. It consists of two elements: search box and list.

Search Box

- A text in the search box is used to perform continuous full-text search in the list.
- Search is case-insensitive.

List

A list contains snippets that match the search criteria. If the search box is empty, favorite snippet are displayed first. Otherwise, snippets are sorted alphabetically.

11.5.2 Character List

Insertion of certain characters can be difficult and character list was created to make this process easier. It works in the same fashion as snippet list.

11.5.3 Lists Hotkeys

Following hotkeys are valid for snippet list and character list.

Keys	Description
(Shift +) Enter	Insert (extended) item
(Shift +) Tab	Insert (extended) item
Esc	Cancel insertion
Ctrl + D	Mark/unmark item as favorite

Table 32 Snippet list hotkeys

11.5.4 Literal Editor

Literal editor is displayed when a snippet containing literals is selected for insertion. It consists of two elements:

- Text box for literal editing.
- Code preview (read-only).
 - When you hover over the code preview with the mouse, a description of the current literal will be displayed.

Text	Font Style
Snippet code	Regular
Literal	Underline
Currently edited literal	Underline + Bold
Code to be surrounded	Italic

Table 33 Code preview formatting

11.5.4.1 Literal Editor Hotkeys

Keys	Description
Enter	Insert or move to next literal
Tab	Insert or move to next literal
Esc	Cancel insert

Table 34 Literal editor hotkeys

12 GUIDE

Guide window contains data that helps you to better understand regular expressions.

Search Box

- A text in the search box is used to perform full-text search in the list. When "Overview" tab is selected, "text" and "description" columns are searched. When "Snippets" tab is selected, "title", "clean code" and "description" columns are searched.
- Search is case-insensitive.

Category List

Category list contains a list of [Regex Categories](#).

12.1 Tabs

12.1.1 Overview

Overview tab contains a comprehensive list of .NET regex language elements. Each item has following properties:

- Category
- Text
- Description

12.1.2 Snippets

Snippets tab contains a list of all snippets.

Item	Comment
Favorite (star symbol)	Labeled with star symbol. This column is editable.
Category	
Title	
Clean Code	Code without "selected" and "end" literals.
Code	
Extended Clean Code	Extended Code without "selected" and "end" literals.
Extended Code	
Description	

Table 35 Snippet table columns

12.1.3 Online

Online tab contains a simplified web browser. Each category is linked to the corresponding MSDN website.

A OPTIONS

A.1 Application

Item	Default Value	Range
Match time-out	2 seconds	0 – 86 400 seconds
Maximal number of recent items	32 items	4 – 64 items

Table 36 Application options

A.2 Text Editor

Indent New Line

When enter key is pressed the indent from previous line is added to the newly created line. This option is valid for pattern editor only

Select entire current line after load

When a pattern, a replacement or an input is loaded from a file and "Current Line Only" mode is turned on, entire current line will be selected.

A.3 Fonts and Colors

A.3.1 Group

Set Default Font

Set group font name and font size to its default values.

Set Group Defaults

Set group font name and font size to its default values. Also, set all group items to its default values.

Set Groups Defaults

Set all groups to its default values.

A.3.2 Item

Set Item Defaults

Set item background color, font color and bold value to its default values.

A.4 Snippets

Hidden Categories

Snippets with selected categories are not visible in the pattern editor snippet list. By default, "Substitutions" and "NamedBlocks" categories are set as hidden.

Set Default Favorite Snippets

Reset a list of favorite snippets to its default values.

Set Default Favorite Characters

Reset a list of favorite characters to its default values.

A.5 Output

Output items limit

Maximum number of matches (items) that will be displayed when output limit is enabled. Default value is 10 000.

Number alignment

Alignment of number values in output can be set to "Left" or "Right". Default value is "Right".

A.5.1 Text

Omit repeated info

Match number, group number/name or capture number that would have the same value as in previous item is omitted. Default value is true. This option is not relevant for replace mode.

Highlight before and after result

Highlight text from the end of the previous result to the beginning of the current result and from the end of the current result to the beginning of the next result. This option is relevant for replace mode only. Default value is true.

A.5.2 Tree

Show a number of children

Show a number of child nodes of match node or group node with captures.

Show a total number of captures

Show a total number of all captures in all matches. This option is relevant for match mode only.

Expand all nodes

Expand all nodes when an output tree is loaded.

A.6 Symbols

Symbol	Default Value	Unicode
Carriage Return	←	U+2190
Linefeed	↓	U+2193
Tab	→	U+2192
No Capture	∅	U+2205

Table 37 Symbols

A.7 Export

Item	Default	Values
New line literal	Lf	Lf, CrLf
Concatenation operator position	End	Start, End
Concatenation operator (Visual Basic only)	"+"	"+", "&"

Table 38 Export options

A.8 Regex Options

Visibility

Specify which options will be visible. Unchecked option will still be visible if that option is set in the current project.

Set Default Visibility

Following options will be set as visible: Explicit Capture, Ignore Case, Ignore Pattern Whitespace, Multiline and Singleline.

Show Hotkey Number

A column with a hotkey number will be displayed in the regex options list.

Show Description

A column with a description will be displayed in the regex options list.

A.9 Default Values

Default values are used when a new project or a new input is created.

A.9.1 Project Default Values

Item	Default Value	Comment
Use current line only	false	
Regex Options	IgnoreCase, ExplicitCapture, IgnorePatternWhitespace	

Table 39 Pattern default values

Item	Default Value	Comment
Current line includes new line	false	
Use current line only	false	
New line	Lf	Lf or CrLf

Table 40 Replacement default values

Item	Default Value	Comment
Carriage return symbol	true	
Highlight text	true	
Linefeed symbol	true	
No capture symbol	true	Table only
Show info	true	
Tab symbol	true	
Wrap text	false	Table only

Table 41 Output default values

A.9.2 Input Default Values

Item	Default Value	Comment
Current line includes new line	false	
Highlight text	true	
Use current line only	false	
New line	Lf	Lf or CrLf
Encoding	Unicode (UTF-8)	

Table 42 Input default values

B HOTKEYS OVERVIEW

Scope	Keys	Description
<ul style="list-style-type: none"> Main Window 	F1	Show guide
	Shift + F1	Show user guide
	Ctrl (+ Shift) + Tab	Move forward (backward) through elements
	Alt + F2	Toggle output
	Ctrl (+Shift) + F2	Change evaluation mode (backward)
	Ctrl + Shift + S	Save all (project and input)
	Ctrl + N	Add new item
	Ctrl + O	Open existing project
	Ctrl + -	Navigate backward in project explorer
	Ctrl + Shift + -	Navigate forward in project explorer
	Ctrl + 0-9	Toggle group by index
	Ctrl + ~	Toggle group "0"
	Ctrl + Shift + 1-9	Toggle regex option by position in list
	Ctrl + Shift + ~	Set all or none regex options
<ul style="list-style-type: none"> Text Editor 	Ctrl + X	Cut (Cut entire line)
	Ctrl + C	Copy (Copy entire line)
	Ctrl + V	Insert
	Ctrl + A	Select All
	Ctrl + P	Print
	Ctrl + U	Set selected text to lower-case
	Ctrl + Shift + U	Set selected text to upper-case
<ul style="list-style-type: none"> Project Explorer 	Enter	Open item
	F7	Open item or add new directory
	F2	Rename item
	Del	Delete item
	Ctrl + Del	Remove input from project
	Ctrl + Shift + A	Add new item

	Ctrl + D	Add existing item
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Scope	Keys	Description
<ul style="list-style-type: none"> Input Editor Pattern Editor Replacement Editor 	Ctrl + R	Turn "Current Line Only" mode on/off
	Ctrl + T	Turn "Selection Only" mode on/off
	Ctrl + Shift + C	Export selected text using default mode
	Ctrl + Shift + V	Import selected text using default mode
	Alt + Up	Move selected text one line up
	Alt + Down	Move selected text one line down
<ul style="list-style-type: none"> Pattern Editor 	Ctrl + S	Save project (except input)
	Ctrl + K, Ctrl + C	Comment selected lines
	Ctrl + K, Ctrl + U	Uncomment selected lines
<ul style="list-style-type: none"> Input Editor 	Ctrl + S	Save input
<ul style="list-style-type: none"> Replacement Editor Input Editor 	Ctrl + Shift + N	Change new line
<ul style="list-style-type: none"> Pattern Editor Replacement Editor 	Ctrl + Q	List snippets by title
	Ctrl + Space	List snippets by title
	Ctrl + Shift + Q	List snippets by code
	Ctrl + W	List characters by title
	Ctrl + Shift + W	List characters by value
	Ctrl + E	List recent snippets/characters by title
	Ctrl + Shift + E	List recent snippets/characters by value
	Ctrl + B	Insert last inserted snippet
	Ctrl + Shift + B	Insert last inserted code
<ul style="list-style-type: none"> Regex Options Groups 	Enter or Space	<p>If one item is selected:</p> <ul style="list-style-type: none"> Toggle selected item. <p>If many items are selected:</p> <ul style="list-style-type: none"> When all selected items are set, toggle all selected items. Otherwise, set all selected items.
<ul style="list-style-type: none"> Input Editor Output Text Output Summary 	Alt + Shift + Left	Go to first item
	Alt + Left	Go to previous item
	Alt + Right	Go to next item
	Alt + Shift + Right	Go to last item

Scope	Keys	Description
<ul style="list-style-type: none">• Snippet List• Character List	(Shift +) Enter	Insert (extended) item
	(Shift +) Tab	Insert (extended) item
	Esc	Cancel insertion
	Ctrl + D	Mark/unmark item as favorite
<ul style="list-style-type: none">• Literal Editor	Enter or Tab	Insert or move to next literal
	Esc	Cancel insert
<ul style="list-style-type: none">• Project Explorer• Output Tree	Ctrl + Left	Collapse all sub nodes
	Ctrl + Right	Expand all sub nodes

C PROJECT XML SCHEMA

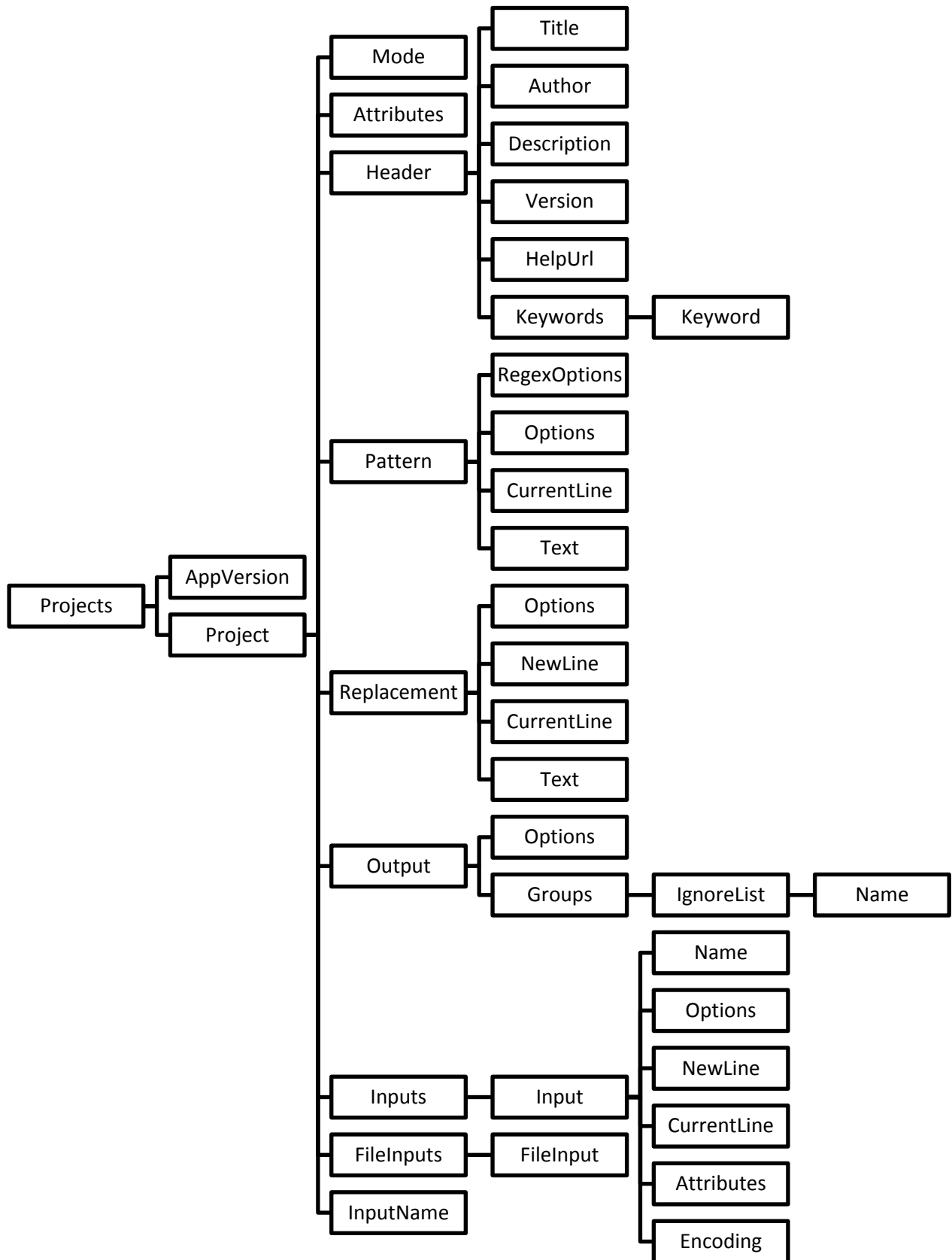


Figure 1 Project XML Schema

C.1 Projects Element

Item	Description
AppVersion [attribute]	Last saved application version ("major.minor").
Project	→ Project Element

Table 43 Projects Element

C.2 Project Element

Item	Description
Mode [attribute]	Match, Replace or Split
Attributes	For future use
Header	→ Header Element
Pattern	→ Pattern Element
Replacement	→ Replacement Element
Output	→ Output Element
Inputs, FileInputs	→ Inputs, FileInputs Element
InputName	Last open input name

Table 44 Project Element

C.3 Header Element

Item	Description
Title	Project title
Author	Project author
Description	Project description
Version	Project version
HelpUrl	for future use
Keywords	for future use

Table 45 Header Element

C.4 Pattern Element

Item	Description
RegexOptions	A combination of RegexOptions values
Options	None or CurrentLineOnly
CurrentLine	Current line number (numbered from 0)
Text [CDATA section]	Pattern text

Table 46 Pattern Element

C.5 Replacement Element

Item	Description
Options	<ul style="list-style-type: none">• None or a combination of the following values: <ul style="list-style-type: none">• Current Line Includes New Line• Current Line Only
NewLine	Lf or CrLf
CurrentLine	Current line number (numbered from 0)
Text	Replacement text

Table 47 Replacement Element

C.6 Output Element

Item	Description
Options	<ul style="list-style-type: none">• None or a combination of the following values: <ul style="list-style-type: none">• CarriageReturnSymbol• Highlight• Info• LinefeedSymbol• NoCaptureSymbol• TabSymbol• WrapText
Groups	→ Groups Element

Table 48 Output Element

C.7 Groups Element

Item	Description
IgnoreList	A list of unchecked group names

Table 49 Groups Element

C.8 Inputs, FileInputs Element

Item	Description
Input, FileInput	→ Input, FileInput Element

Table 50 Inputs Element

C.9 Input, FileInput Element

Item	Description
Name [attribute]	Input name
Options	<ul style="list-style-type: none">• None or a combination of the following values: <ul style="list-style-type: none">• Current Line Includes New Line• Current Line Only• Highlight
NewLine	Lf or CrLf
CurrentLine	Current line number (numbered from 0)
Encoding	Encoding name (not relevant for Input)
Attributes	for future use
Text	Input text (not relevant for FileInput)

Table 51 Input Element

D SNIPPET XML SCHEMA

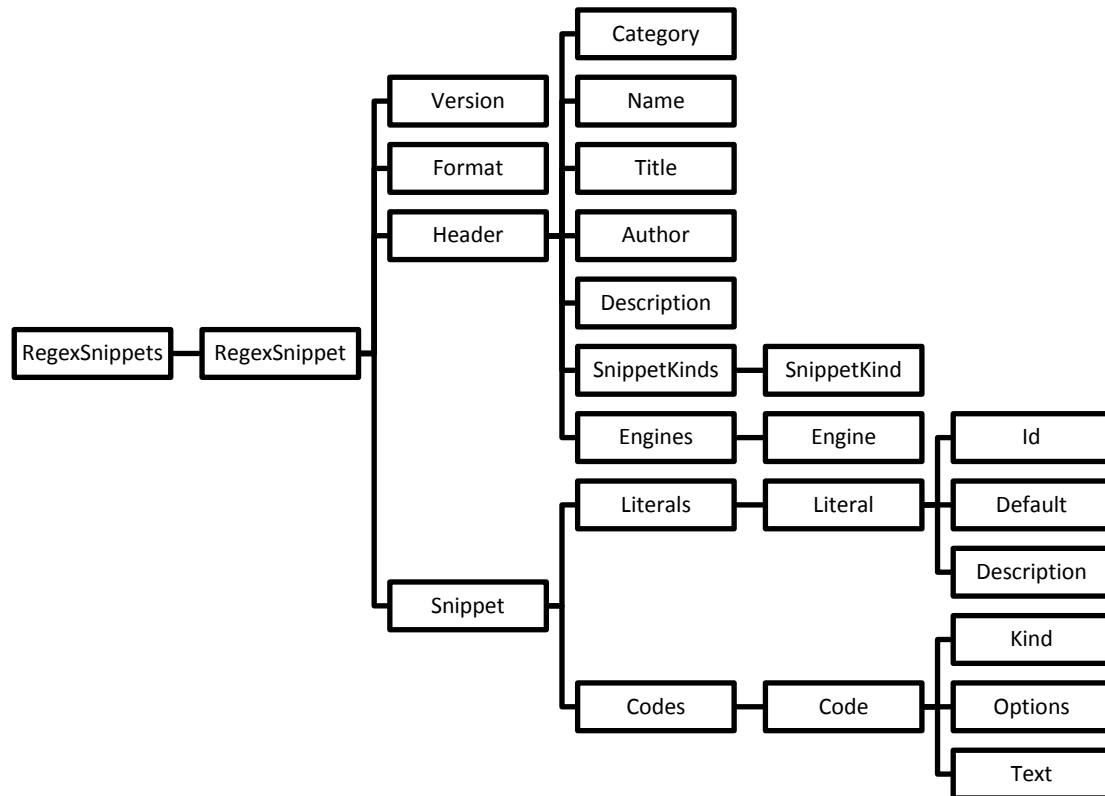


Figure 2 Snippet XML schema

D.1 RegexSnippet Element

Item	Description
Version [attribute]	Snippet version ("major.minor.build")
Format [attribute]	Schema version ("major.minor.build")
Header	→ Header Element
Snippet	→ Snippet Element

Table 52 RegexSnippet Element

D.2 Header Element

Item	Description
Category	Snippet category
Name	Snippet name
Title	Snippet title
Author	Author name or Company name
Description	Description text
SnippetKinds	→ SnippetKinds Element

Table 53 RegexSnippet Element

Category

- It can contain only following characters: letters (a-z, A-Z), numbers (0-9) or underscore.
- It must start with a letter (a-z, A-Z).
- It must be at least 2 characters long.

Name

- It can contain only following characters: letters (a-z, A-Z), numbers (0-9) or underscore.
- It must start with a letter (a-z, A-Z).
- It must be at least 2 characters long.

D.3 SnippetKinds Element

Item	Description
SnippetKind	Regular or Surround

Table 54 SnippetKinds Element

D.4 Snippet Element

Item	Description
Literals	→ Literal Element
Code	→ Code Element

Table 55 Snippet Element

D.5 Literal Element

Item	Description
Id	Literal id (a value enclosed in "%")
Default	Default value
Description	Description text

Table 56 Literal Element

Id

- It can contain only following characters: letters (a-z, A-Z), numbers (0-9) or underscore.
- It must start with a letter (a-z, A-Z).
- It must be at least 2 characters long.

D.6 Code Element

Item	Description
Kind [attribute]	One of the following values: <ul style="list-style-type: none">• Default• Format• Negative Default value is "Default".
Options [attribute]	for future use
Text [CDATA section]	Code text

Table 57 Code Element