PcPatrEditor User Documentation

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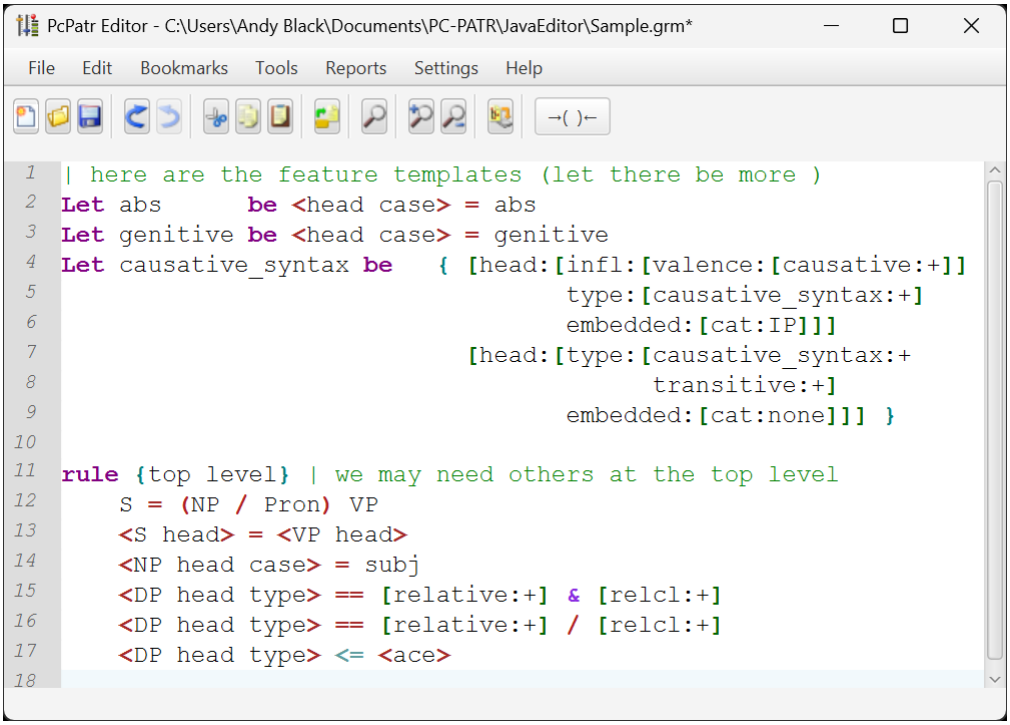
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1 Introduction

PcPatrEditor is a tool to edit PcPatr grammar files. It is designed to help you see the grammar file items more easily.

PcPatrEditor looks like what is shown in (1).

(1)



The file name of the grammar file is shown in the upper left part of the window. You edit the grammar in the main pane. When PcPatrEditor finds any error messages, a message will show in the status bar. If you double-click on the status bar, you will be shown where the error was found.[1]

You can drag the edges of the window to make it larger.

2 Edit menu items

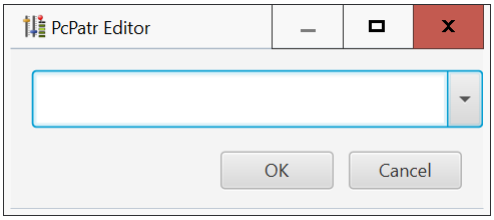
The Edit menu item has the standard set of options such as copy, cut and paste. It also allows you to undo and redo changes. There are several other items as described below.

2.1 Show feature system for inserting

At any point while editing, you can use this option (or type **Ctrl-space** or right-click the mouse) and PcPatrEditor will show you a dialog box like the one in example (2).

[1] When the grammar is large, it may take a while for an error message to appear or go away.

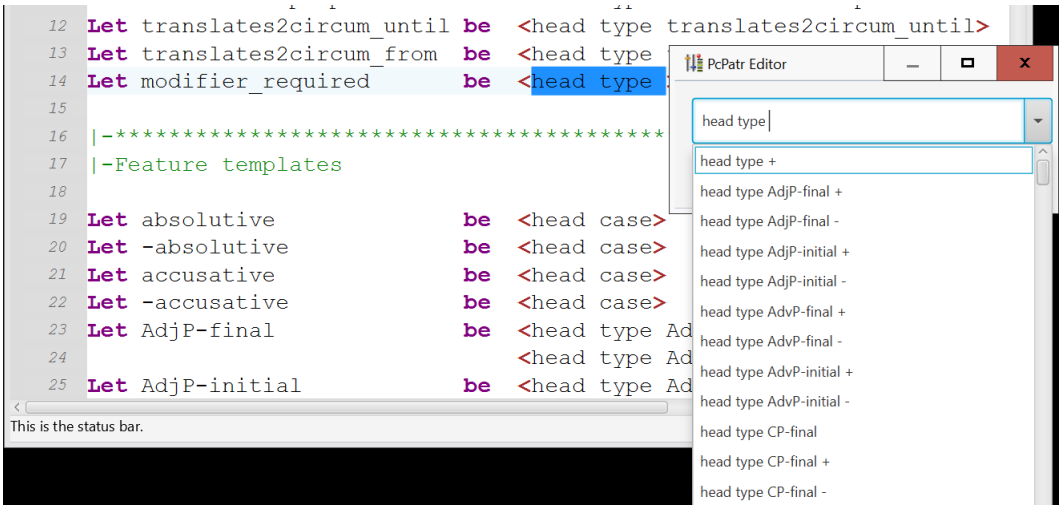
(2)



As you type, it will show all feature paths that match what you type. When you click on "OK" or hit the **Enter** key, PcPatrEditor will insert the text of the full path you have chosen into the grammar at the point of the text cursor.

If the cursor is within a feature path, then this dialog will start with whatever preceding text is in the path. In one case it looked like what is in example (3).

(3)



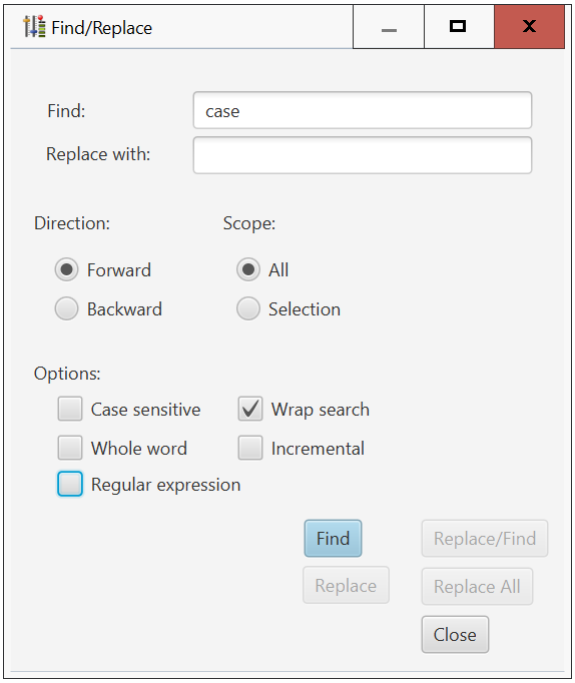
Whatever you select will replace the selected text in the grammar.

See also section 6.5 for the two options this dialog has.

2.2 Find/Replace

Using the Find/Replace item brings up the Find/Replace dialog. It looks something like what is in example (4).

(4)



It is fairly straightforward. The "Incremental" option can be used to have PcPatrEditor search for the text in the "Find:" box as you type.

Some things to note about how this dialog box works:

1. Using the "Selection" option will search within whatever text you currently have selected. It will only find any item once (because it loses the selection when it selects what it found).
2. The "Whole word" option will fail if you try and find any combination of letters (and numbers) with something else (e.g., a minus sign).
3. If the item found is off to the right of the window (i.e., you need to scroll to the right in order to see it), that found item will not be visible (but will be selected). It may work better if you set the PcPatrEditor window to be full screen.
4. The "Replace All" process does not work when the "Selection" option is set.

For information on how to use a regular expression to find (and replace), see https://docs.oracle.com/javase/8/docs/api/java/util/regex/Pattern.html. If PcPatrEditor finds an error in the syntax of a regular expression in either the find or replace fields, an error message in red will be shown. Hopefully, it will give you enough information to know how to fix the problem.

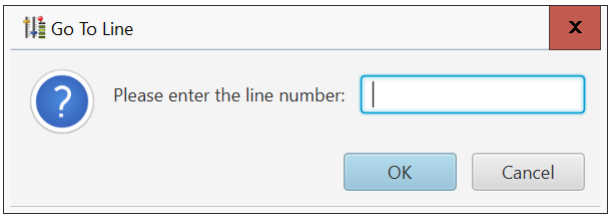
2.3 Find next

You can use the Find next item to repeat whatever the last find/replace operation was. There will be an audible beep if it cannot go to the next item.

2.4 Go to line

Using the Go to line item brings up a chooser that looks like what is in example (5).

(5)



Enter the line number and click the "OK" button. That line number will be shown.

2.5 Comments

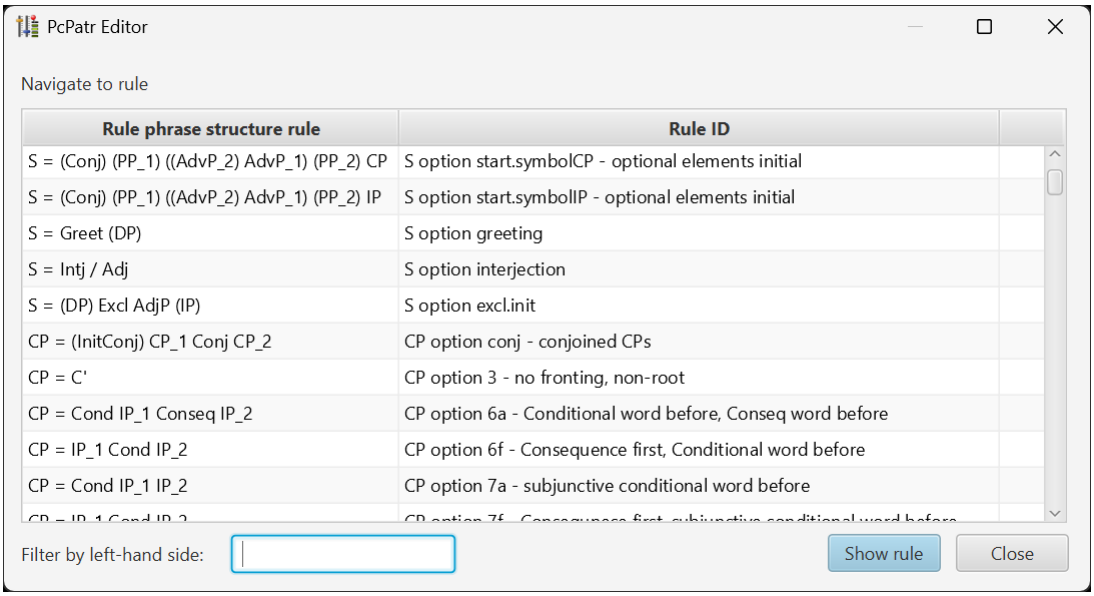
When you select a portion of text, you can insert (or remove) the comment character at the beginning of each line in the selected portion. If the selected text does not start at the beginning of a line, a comment character will still be inserted (or removed) at the beginning of that text material.

To insert comments in selected material, use either Edit / Insert comment or type **Ctrl-Shift-C**. To remove comments in selected material, use either Edit / Remove comment or type **Ctrl-Shift-R**.

2.6 Navigate to rule

Using the Navigate to rule item (or clicking on the icon in the toolbar or typing **Ctrl-R**) brings up a dialog that looked like what is in example (6) for one grammar file.

(6)



Click on the rule you want to show in the editor or use the up and down arrow keys to select the rule you want. Then click the "Show rule" button. Alternatively,

you can double-click on the rule you want. That rule will be shown in the editor and the editor will have the focus so you can start typing or using the arrow keys to move around.

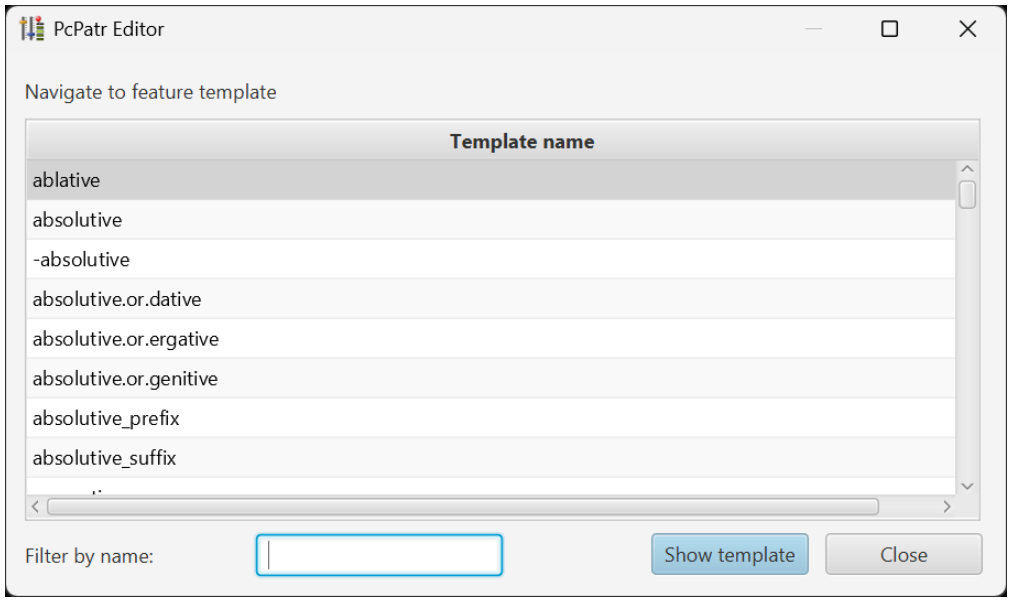
You can also filter which rules to show by clicking in (or using the **TAB** key to navigate to) the text box at the bottom. Type the left-hand side non-terminal constituent you want to filter on. All rules whose entire left-hand side non-terminal constituent which match what is shown in the text box will appear. Note that nothing will show if nothing matches yet while you type. Upper/lower case is significant.

Note that this dialog does not automatically close when you click on the "Show rule" button or double-click on a rule. This allows you to keep it open for when you next want to go to a rule. When you do close it, PcPatrEditor will remember its size and position on the screen for the next time you invoke it.

2.7 Navigate to template

Using the Navigate to template item (or clicking on the icon in the toolbar or typing **Ctrl-R**) brings up a dialog that looked like what is in example (6) for one grammar file.

(7)



Click on the template you want to show in the editor or use the up and down arrow keys to select the template you want. Then click the "Show template" button. Alternatively, you can double-click on the template you want. That template will be shown in the editor and the editor will have the focus so you can start typing or using the arrow keys to move around.

You can also filter which templates to show by clicking in (or using the **TAB** key to navigate to) the text box at the bottom. Type the name you want to filter on. All template names beginning with what you type will appear. Upper/lower case is significant.

Note that this dialog does not automatically close when you click on the “Show template” button or double-click on a template. This allows you to keep it open for when you next want to go to a template. When you do close it, PcPatrEditor will remember its size and position on the screen for the next time you invoke it.

3 Bookmarks menu items

PcPatrEditor has an ability for you to mark certain lines with bookmarks. You can then move quickly from one bookmark to another. PcPatrEditor will remember your bookmarks for each grammar file.[2]

To toggle a bookmark, use either Bookmarks / Toggle bookmark or type **Ctrl-F2**. To go to the next bookmark, use either Bookmarks / Next bookmark or type **F2**. To go to the previous bookmark, use either Bookmarks / Previous bookmark or type **Alt-F2**. When moving from one bookmark to another, if there are no more bookmarks in that direction, PcPatrEditor will automatically wrap to the next appropriate bookmark.

If you wish to remove or clear all bookmarks, use Bookmarks / Clear all bookmarks.

When a line has a bookmark set for it, there will be a tag-like icon before the line number. It might look like line 9 in example (8).

(8)

```
 8  |Let benefactor              be  <head case>
 9  Let direct                  be  <head case>
10  ||Let object                 be  <head case>
```

4 Tools menu item

PcPatrEditor currently has one tool option.

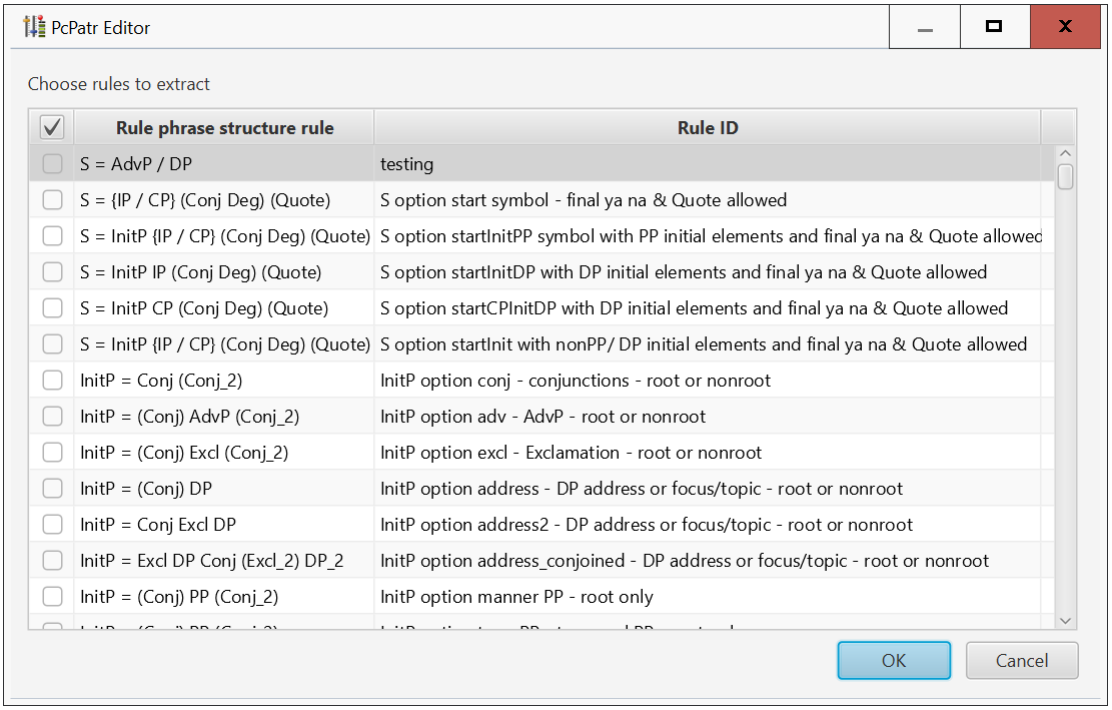
4.1 Export selected rules for debugging

This tool option is available under the Tools menu item as Export selected rules for debugging. You can also invoke it by clicking on the icon in the toolbar. This is useful when you are trying to debug a PcPatr grammar file and want to create a separate grammar file that contains only certain selected rules.

When you invoke this option, PcPatrEditor will bring up a dialog box containing a list of the rules. In one grammar file, it looked like what is in example (9).

[2] This is done on a machine-by-machine basis. That is, if you use PcPatrEditor on one computer and then copy a grammar file to another computer, the second computer will not know where the bookmarks are. You will have to create the bookmarks again. (On Windows, the bookmarks are stored in C:\ProgramData\SIL\PcPatrEditor\bookmarks.xml; on Linux and Mac OS X, they are in ~/.pcpatreditor/bookmarks.xml.)

(9)



For each rule, it has a check box, the phrase structure rule and the rule identifier. You select which rules you want to export by clicking on them. (You can also use the up and down arrows and the space bar to select/deselect rules).

When you have chosen the rules you want to use, click on the “OK” button. PcPatrEditor will ask you to save the file, giving it a new name. This new file will contain all of the templates but just the selected rules.

See section 6.4 for what the options are for what happens next after saving the file containing the selected rules.

5 Reports menu items

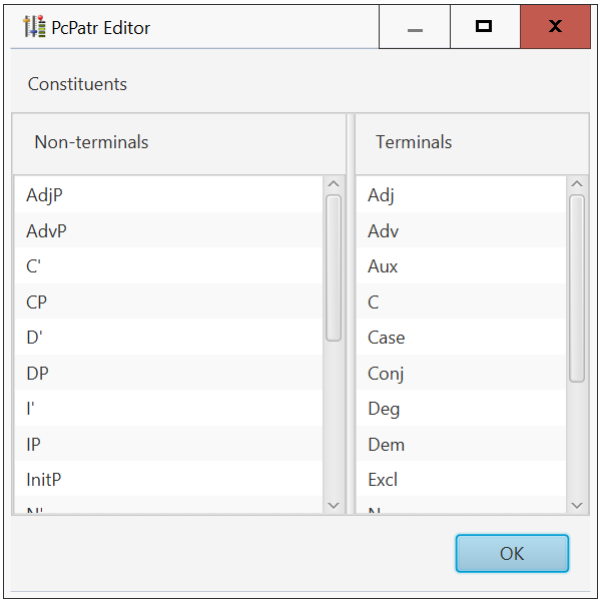
PcPatrEditor currently has two report options.

5.1 Show phrase structure constituents

This report option is available under the Reports menu item as Show phrase structure constituents. This is useful when you want to see what the current set of non-terminal and terminal constituents are.

When you invoke this option, PcPatrEditor will bring up a dialog box showing the non-terminals and terminals. In one grammar file, it looked like what is in example (10).

(10)



Unlike most dialog boxes, you can still edit the grammar, etc., in the main program while this dialog is running. Note, however, that it shows the set of constituents at the time the report was generated. If you make changes after that, you will need to invoke the report again. We suggest you close the older dialog first.

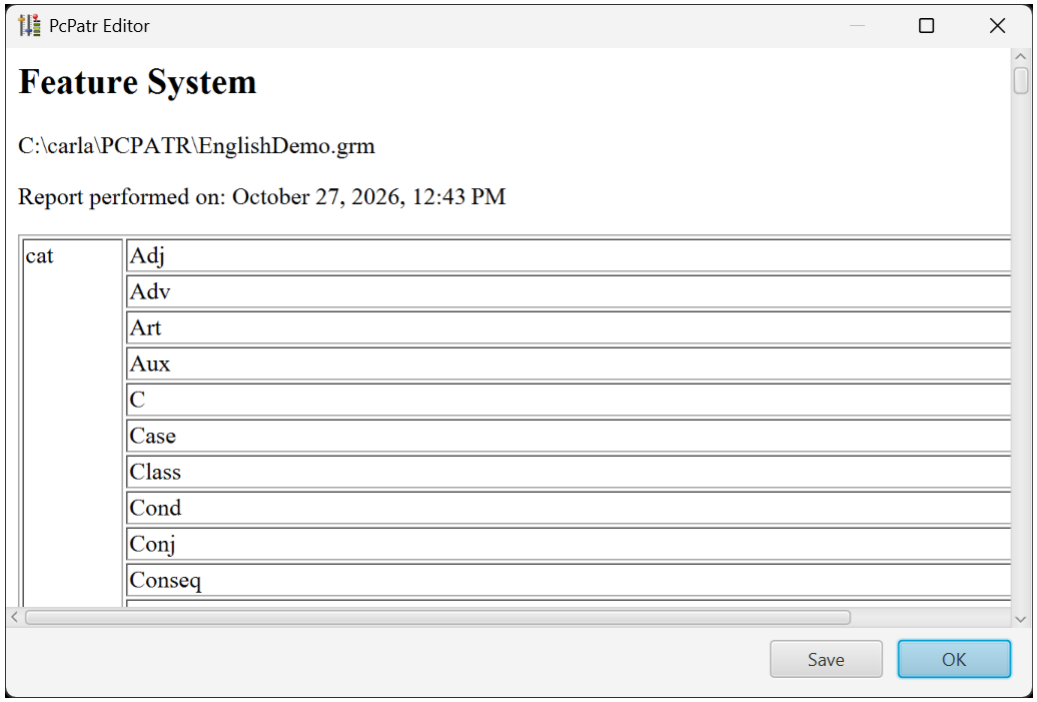
5.2 Show feature system

This report option is available under the Reports menu item as Show feature system. This is useful when you want to see what feature paths are used throughout the grammar, arranged as a system. Sometimes it will show typos you had not noticed before.

When you invoke this option, PcPatrEditor will bring up a dialog box showing the feature system. In one grammar file, it looked like what is in example (11).

You can save the report to a file by clicking on the “Save” button. This allows you to print it out via your web browser, if you so choose.

(11)



Unlike most dialog boxes, you can still edit the grammar, etc., in the main program while this dialog is running. Note, however, that it shows the feature system at the time the report was generated. If you make changes after that, you will need to invoke the report again. We suggest you close the older dialog first.

6 Settings menu items

The Settings menu item has several options you can use to (hopefully) improve your experience with using PcPatrEditor. These are described below.

Please note that these settings are associated with the PcPatrEditor program on your computer. Once you set them, they will be used each time you use PcPatrEditor (until you change them, of course).

6.1 Show matching parentheses, braces, brackets, and/or wedges with arrow keys

Whenever you key an opening parenthesis ('('), brace ('{'), bracket ('['), or wedge ('<'), PcPatrEditor will automatically insert the matching closing item.

There are times when you need to see the matching items. For this reason, there is the first item under the main Settings menu item: Show matching items with arrow keys. When this is checked, whenever you use an arrow key to cross over a parenthesis (or brace or bracket or wedge) in the grammar, PcPatrEditor will temporarily select the item that matches the one crossed over.

Besides using this menu option, you can also use the toolbar button shown in (12).

(12)

Show matching with arrows	**Do not show matching with arrows**
	

6.2 Delay to use when showing matching parentheses

The second item under the main Settings menu item is Delay to use when showing matching items. The default delay is 750 milliseconds (i.e., three quarters of a second). Depending on your typing speed, you may want to change this value. Use this menu item to change the delay value to be shorter or longer. The shortest allowed value is 125 milliseconds (i.e., one eighth of a second) and the longest value allowed is 4000 milliseconds (i.e., 4 seconds).

6.3 Font size for the grammar

The third item under the main Settings menu item is Font size. This lets you set the font size for the text of the grammar file.

6.4 Action to take after exporting selected rules

The fourth item under the main Settings menu item is After export. This lets you choose what you want PcPatrEditor to do after you have saved a new grammar file for debugging. See section 4.1.

When you hover over After export, three possible actions are shown:

1. Continue editing in the current file
2. Open the exported file
3. Open the exported file in a new instance

The one with a check mark by it is the currently selected one.

The first one is the default option. The third one will open yet another instance of the PcPatrEditor that has the exported file in it. This way you can still see the original file (in one instance of the PcPatrEditor) as well as the exported file.

To select one of the options, merely click on it.

6.5 Feature path searching

There are two possible ways to search the list of feature paths as described in section 2.1. The default is to search from the beginning of the path. The other is to search for any part of a path that matches part of what is typed in the box.

The fifth item under the main Settings menu item is Feature path searching. This lets you choose which option you want PcPatrEditor to use when typing in the box.

When you hover over Feature path searching, the two possible actions are shown:

1. From the beginning
2. Anywhere

The one with a check mark by it is the currently selected one.
The first one is the default option.
To select one of the options, merely click on it.

7 Known problems

The following items are known to be less than desirable with this version of PcPatrEditor:

- When you are using bookmarks and export selected rules with the “Open the exported file in a new instance” option, the bookmarks of the original file may be stored as the bookmarks for the exported file.
- When showing matching parentheses while using arrow keys (see section 6.1), if you type several arrow keys quickly, the cursor caret may not be where you expect it. Either
  - turn off the show matching parentheses with the arrow keys option;
  - set the delay to be shorter (see section 6.2); or
  - wait for the matching parenthesis to show before pressing the next arrow key.

8 Support

If you have any questions with PcPatrEditor or find bugs in it, please send an email to blackhandrew@gmail.com.