

Extract Variable in JavaScript

In JavaScript and ActionScript (if supported by your version of IntelliJ IDEA), you can replace an expression with a variable or a constant. For JavaScript 1.7 or a later version, there is also an option of extracting a local variable.

To perform this refactoring, you can use:

- **In-place refactoring.** In this case you specify the new name right in the editor.
- **Refactoring dialog,** where you specify all the required information. To make such a dialog accessible, you have to clear the check box **Enable in-place mode** in the editor settings.

JavaScript examples

Before	After
<pre>Parenizor.method('toString', function () { return '(' + this.getValue() + ');' }</pre>	<p>GLOBAL VARIABLE</p> <pre>Parenizor.method('toString', function() var string = '(' + this.getValue() return string; }</pre> <p>LOCAL VARIABLE</p> <pre>Parenizor.method('toString', function() let string = '(' + this.getValue() return string; }</pre>
<pre>var browserName = "N/A"; if (navigator.appName.indexOf("Netscape") != -1) { browserName = "NS"; } else if (navigator.appName.indexOf("Microsoft") != -1) { browserName = "MSIE"; } else if (navigator.appName.indexOf("Opera") != -1) { browserName = "O"; }</pre>	<pre>var browserName = "N/A"; var appName = navigator.appName; if (appName.indexOf("Netscape") != -1) { browserName = "NS"; } else if (appName.indexOf("Microsoft") != -1) { browserName = "MSIE"; } else if (appName.indexOf("Opera") != -1) { browserName = "O"; }</pre>

To extract a variable using in-place refactoring

1. In the editor, select the expression to be replaced with a variable. You can do that yourself or use the *smart expression selection* feature to let IntelliJ IDEA help you. So, do one of the following:

- Highlight the expression. Then choose **Refactor | Extract | Variable** from the main or the context menu.

Alternatively, press **Ctrl+Alt+V**.



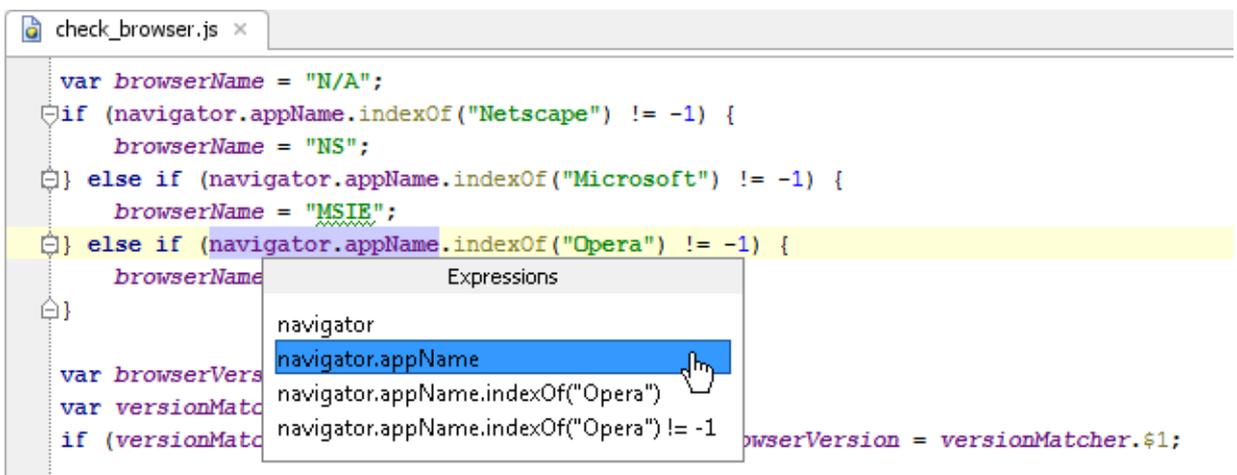
```
var browserName = "N/A";
if (navigator.appName.indexOf("Netscape") != -1) {
    browserName = "NS";
} else if (navigator.appName.indexOf("Microsoft") != -1) {
    browserName = "MSIE";
} else if (navigator.appName.indexOf("Opera") != -1) {
    browserName = "O";
}
```

- Place the cursor before or within the expression. Choose **Refactor | Extract Variable** from the main or the context menu, or press **Ctrl+Alt+V**.



```
var browserName = "N/A";
if (navigator.appName.indexOf("Netscape") != -1) {
    browserName = "NS";
} else if (navigator.appName.indexOf("Microsoft") != -1) {
    browserName = "MSIE";
} else if (navigator.appName.indexOf("Opera") != -1) {
    browserName = "O";
}
```

In the **Expressions** pop-up menu, select the expression. To do that, click the required expression. Alternatively, use the up and Down arrow keys to navigate to the expression of interest, and then press **Enter** to select it.



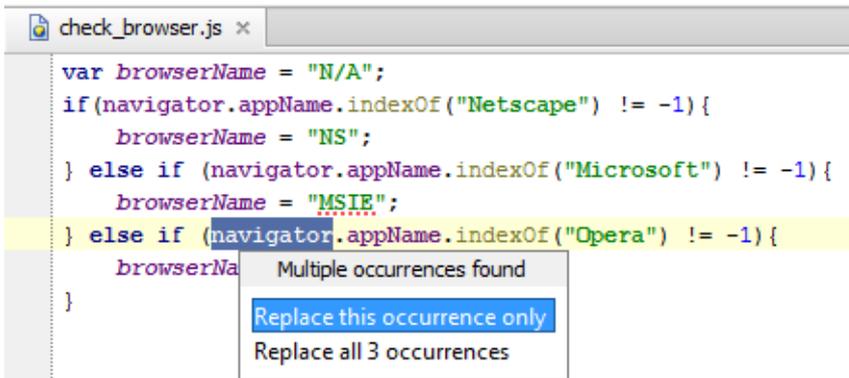
```
var browserName = "N/A";
if (navigator.appName.indexOf("Netscape") != -1) {
    browserName = "NS";
} else if (navigator.appName.indexOf("Microsoft") != -1) {
    browserName = "MSIE";
} else if (navigator.appName.indexOf("Opera") != -1) {
    browserName = "O";
}

var browserVersion = "N/A";
var versionMatcher = new VersionMatcher(browserVersion);
if (versionMatcher.isMatch("Opera")) {
    browserVersion = versionMatcher.$1;
}
```

The **Expressions** pop-up menu contains all the expressions appropriate for the current cursor position in the editor.

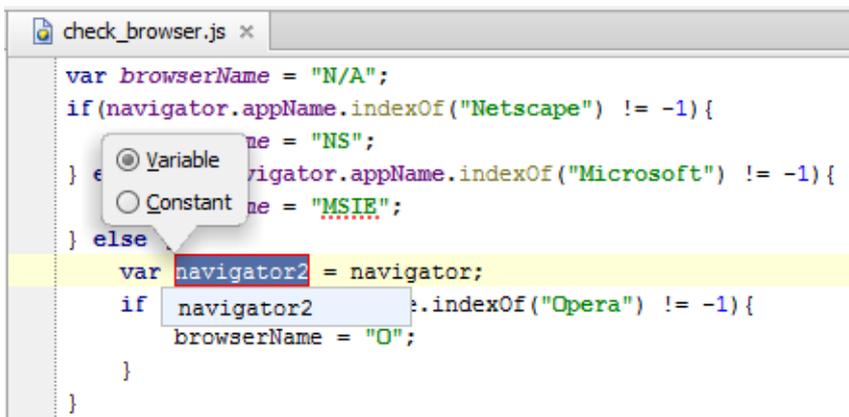
When you navigate through the suggested expressions in the pop-up, the code highlighting in the editor changes accordingly.

2. If more than one occurrence of the selected expression is found, select **Replace this occurrence only** or **Replace all occurrences** in the **Multiple occurrences found** pop-up menu. To select the required option, just click it. Alternatively, use the Up and Down arrow keys to navigate to the option of interest, and press Enter to select it.



```
var browserName = "N/A";
if(navigator.appName.indexOf("Netscape") != -1){
    browserName = "NS";
} else if (navigator.appName.indexOf("Microsoft") != -1){
    browserName = "MSIE";
} else if (navigator.appName.indexOf("Opera") != -1){
    browserName = "O";
}
```

3. Specify whether you want to replace selected expression with a variable, or a constant. To do that, click the desired radio button in the pop-up balloon:

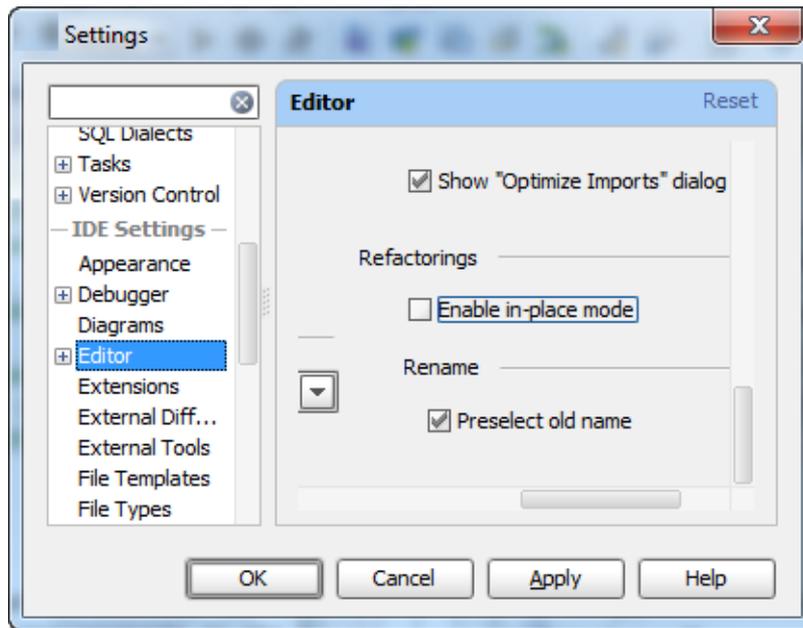


```
var browserName = "N/A";
if(navigator.appName.indexOf("Netscape") != -1){
    browserName = "NS";
} else if (navigator.appName.indexOf("Microsoft") != -1){
    browserName = "MSIE";
} else if (navigator2.indexOf("Opera") != -1){
    browserName = "O";
}
```

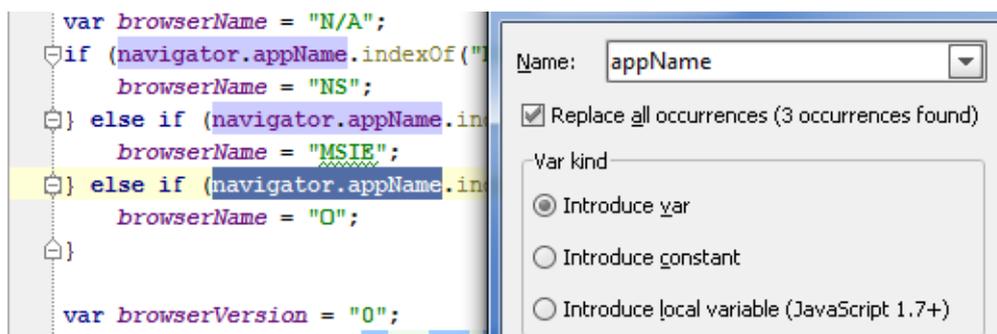
4. Specify the name of the variable. Do one of the following:
- Select one of the suggested names from the pop-up list. To do that, double-click the suitable name. Alternatively, use the Up and Down arrow keys to navigate to the name of interest, and Enter to select it. When finished, press Escape.
 - Edit the name by typing. The name is shown in the box with red borders and changes as you type. When finished, press Escape.

To extract a variable using the dialog box

If the **Enable in place refactorings** check box is cleared in the Editor settings, the **Extract Variable** refactoring is performed by means of the dialog box.



1. Select the desired expression, and invoke *Extract Variable* refactoring as described [above](#).
2. If more than one expression is detected for the current cursor position, the **Expressions** list appears. If this is the case, select the required expression. To do that, click the expression. Alternatively, use the Up and Down arrow keys to navigate to the expression of interest, and then press Enter to select it.
3. In the **Extract Variable** dialog:
 - Specify the variable name next to **Name**. You can select one of the suggested names from the list or type the name in the **Name** box.
 - If more than one occurrence of the selected expression is found, you can select to replace all the found occurrences by selecting the corresponding check box. If you want to replace only the current occurrence, clear the **Replace all occurrences** check box.
 - Specify the type of variable to be extracted: a (global) variable, a constant, or a local variable. To do that, click the required option in the **Var kind** area.
(Note that JavaScript is not supported in IntelliJ IDEA Community Edition.)
 - For ActionScript, you can choose to introduce a constant rather than a variable. To do that, select the **Make constant** check box.
(Note that ActionScript is not supported in IntelliJ IDEA Community Edition.)
 - Click **OK**.



See Also

Procedures:

- [Extract Variable](#)

Web Resources:

- [Developer Community](#) 