



Qt Creator Manual > Completing Code

Completing Code

As you write code, Qt Creator suggests properties, IDs, and code snippets to complete the code. It provides a list of suggestions to the statement currently under your cursor. Press **Tab** or **Enter** to accept the selected suggestion and complete the code.

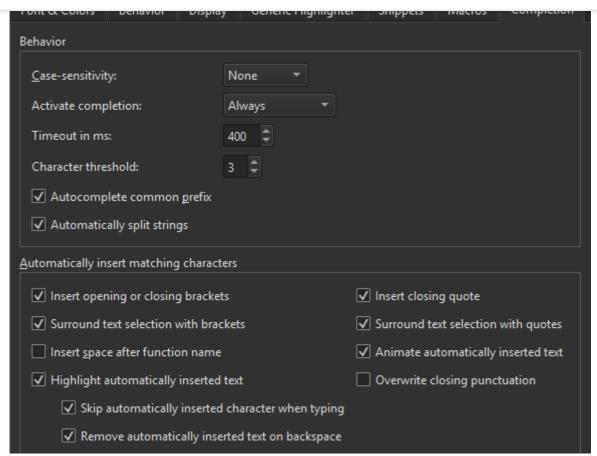
The following image displays suggestions for completing C++ code:

The following image displays suggestions for completing QML code:

To open the list of suggestions at any time, press **Ctrl+Space**. If only one option is available, Qt Creator inserts it automatically.

Specifying Completion Settings





By default, code completion does not consider case. To apply full or first-letter case-sensitivity, select **Full** or **First Letter** in the **Case-sensitivity** field.

By default, code completion is always invoked, but you can change this behavior in the **Activate completion** field to invoke it **Manually** or **When Triggered**.

You can set a timeout in milliseconds for code completion in the **Timeout in ms** field.

In the **Character threshold** field, specify the number of characters you need to enter before code completion is triggered.

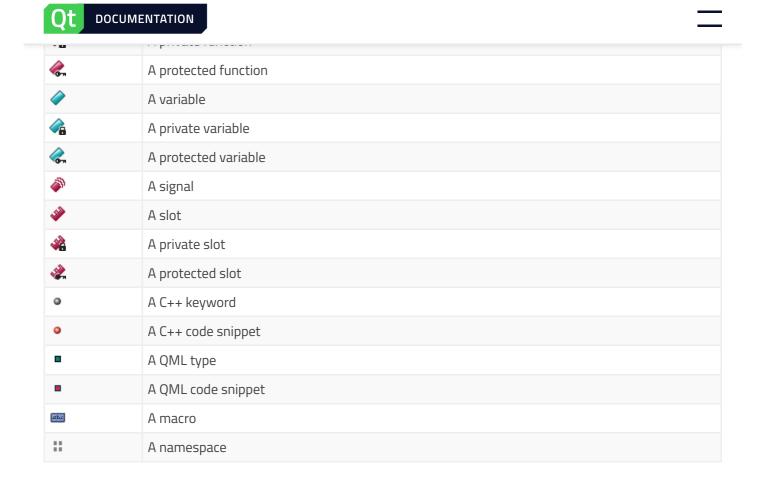
When completion is invoked manually, Qt Creator completes the common prefix of the list of suggestions. This is especially useful for classes with several similarly named members. To disable this functionality, deselect the **Autocomplete common prefix** check box.

Select the **Automatically split strings** check box to split a string to two lines by adding an end quote at the cursor position when you press **Enter** and a start quote at the beginning of the next line, before the rest of the string. In addition, pressing **Shift+Enter** inserts an escape character at the cursor position and moves the rest of the string to the next line.

Summary of Available Types

The following table lists available types for code completion and icon used for each.





Completing Code Snippets

Code snippets can consist of multiple variables that you specify values for. Select an item in the list and press **Tab** or **Enter** to complete the code. Press **Tab** to move between the variables and specify values for them. When you specify a value for a variable, all instances of the variable within the snippet are renamed.

The following image shows a C++ code snippet:

```
main.cpp*
                                             main(int, char **) -> int
#include <QQmlEngine>
#include <QQmlFileSelector>
int main(int argo, char *argv[])
   class
  class

    class derived from QObject

                                       class name: public QObject

    class derived from QWidget

                                         Q_OBJECT
   class template
                                       public:
                                         name() {}
  📬 QClassFactory
                                         virtual ~name() {}
  伐 QMetaClassInfo
     QMetaClassInfo
   🥏 _dclass
    _fdclass
                                                 main.cpp*
```

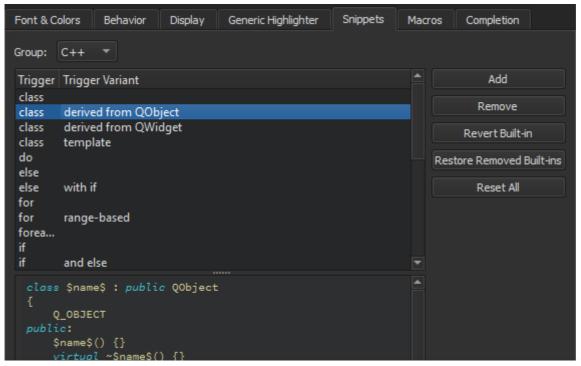


The following image shows a QML code snippet:

Editing Code Snippets

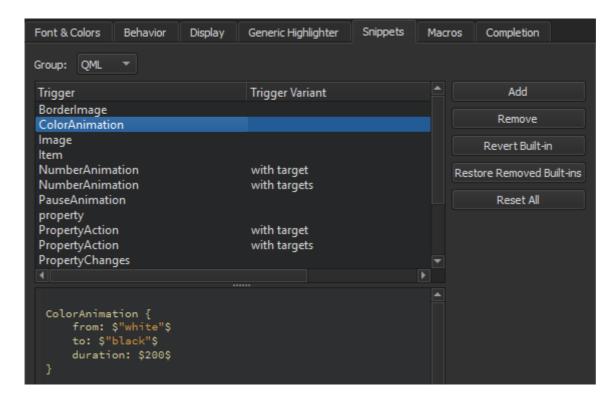
Code snippets specify code constructs. You can add, modify, and remove snippets in the snippet editor. To open the editor, select **Edit** > **Preferences** > **Text Editor** > **Snippets**.

The following image shows built-in C++ code snippets:





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Qt Creator provides you with built-in snippets in the following categories:

- > Text snippets, which can contain any text string. For example, code comments
- C++ code snippets, which specify C++ code constructs
- CMake code snippets that you can use when editing CMakeLists.txt files in the CMake editor
- QML code snippets, which specify QML code constructs
- Nim code snippets, which specify Nim code constructs

Adding and Editing Snippets

Select a snippet in the list to edit it in the snippet editor. To add a new snippet, select **Add**. Specify a trigger and, if the trigger is already in use, an optional variant, which appear in the list of suggestions when you write code. Also specify a text string or C++ or QML code construct in the snippet editor, depending on the snippet category. You can use predefined variables in snippets.

The snippet editor provides you with:

- Highlighting
- Indentation
- Parentheses matching
- Basic code completion

Specify the variables for the snippets in the following format:

\$variable\$



%{variable}

For example, the following variable expands to the name of the project containing the file that is currently open in the editor: %{CurrentDocument:Project:Name}.

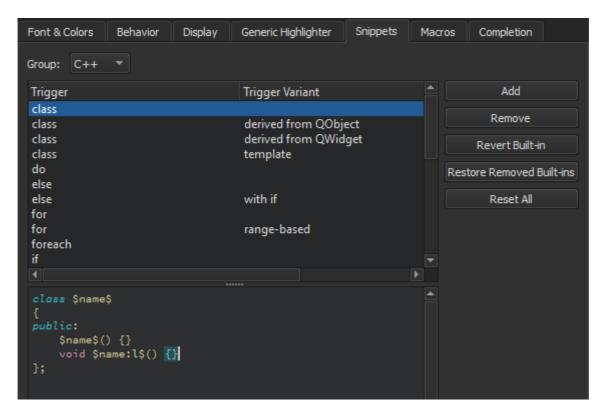
Use unique variable names within a snippet because all instances of a variable are renamed when you specify a value for it.

To determine the case of values you enter in snippets, use the following modifiers:

- : c converts the initial letter of the string to upper case
- :1 converts the string to lower case
- : u converts the string to upper case

For example, add the following line to the class snippet to specify that the function name is converted to all lower case characters regardless of how you specify the value of the \$name\$ variable:

void \$name:1\$() {}



The snippet editor does not check the syntax of the snippets that you edit or add. However, when you use the snippets, the code editor marks any errors by underlining them in red.

To discard the changes you made to a built-in snippet, select **Revert Built-in**.

Removing Snippets

Several similar built-in snippets might be provided for different use cases. To make the list of suggestions shorter when you write code, remove the built-in snippets that you do not need. If you need them later, you can restore



Restore Removed Built-ins.

Resetting Snippets

To remove all added snippets and to restore all removed snippets, select Reset All.

Note: If you now select OK or Apply, you permanently lose all your own snippets.

Completing Nim Code

You can use the Nimsuggest tool to query .nim source files and obtain suggestions for code completion.

To use Nimsuggest, you must install it on the development PC. Then select **Edit** > **Preferences** > **Nim** > **Tools**, and enter the path to the tool executable in the **Path** field.

< Checking Code Syntax

Indenting Text or Code >

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