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Beautifying Source Code

You can use the experimental Beautifier plugin to format your source code by using the following external tools:

> ❯ Artistic Style
> ❯ ClangFormat
> ❯ Uncrustify

The Beautifier plugin parses the source code into component structures, such as assignment statements, if blocks, loops, and so on, and formats them as specified in the Beautifier preferences. You can use a predefined style or define your own style.
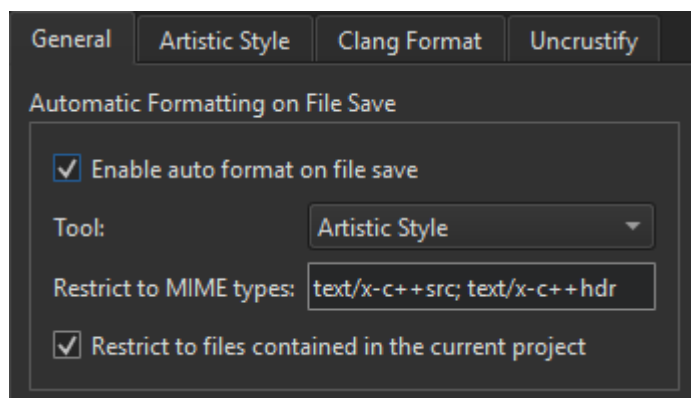
To use the Beautifier plugin:

1. Download and install the tool to use for formatting source code:

   > ❯ Artistic Style
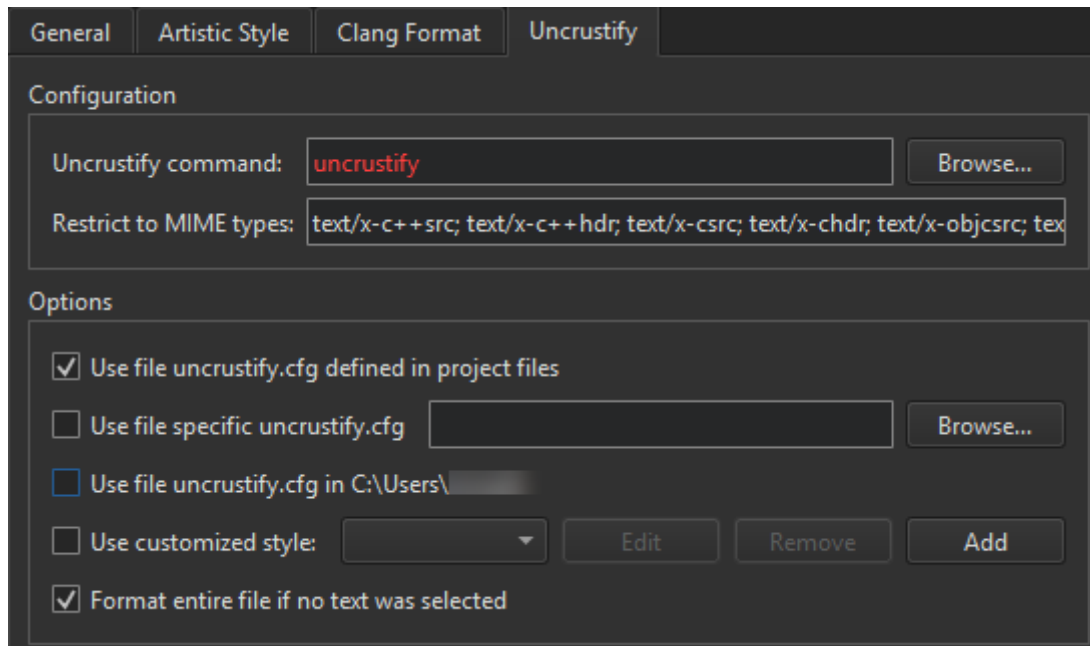   > ❯ ClangFormat
   > ❯ Uncrustify

   You might have to build the tools from sources for some platforms.

2. Select **Help** > **About Plugins** > **C++** > **Beautifier** to enable the plugin.
3. Select **Restart Now** to restart Qt Creator and load the plugin.
4. Select **Edit** > **Preferences** > **Beautifier** to specify settings for beautifying files.
5. Select the **Enable auto format on file save** check box to automatically beautify files when you save them using the tool you select in the **Tool** field.
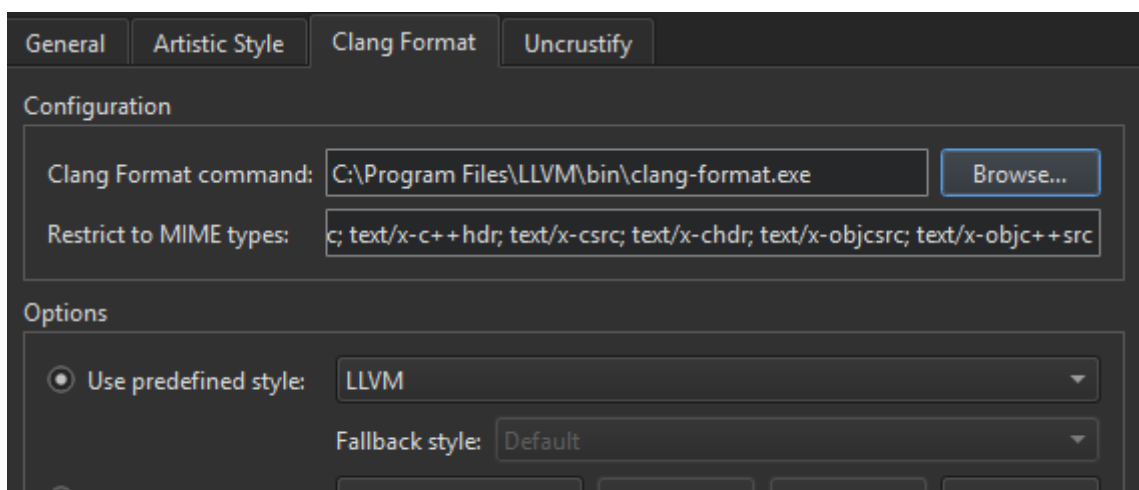

6. In the **Restrict to MIME types** field, define the MIME types of the files to beautify, separated by semicolons. Leave the field empty to apply the tool on all files.

7. Select the **Restrict to files contained in the current project** check box to only beautify files that belong to the current project.

8. Select **Artistic Style**, **Clang Format**, or **Uncrustify** to specify settings for the tool you want to use.

9. In the **Configuration** group, specify the path to the tool executable in the **Artistic Style command**, **Clang Format command**, or **Uncrustify command** field.

10. In the **Restrict to MIME types** field, define the MIME types of the files to beautify. This setting is applied when you select the menu item to format the currently open file.

11. In the **Options** group, select the configuration file that defines the style to use in the source files. If you select several options, they are applied from top down. The available options depend on the tool.

> Select **Use file *.astylerc defined in project files** or **Use file uncrustify.cfg defined in project files**, to use the configuration file defined in the project file as the configuration file for the selected tool.

> Select **Use specific config file** or **Use file specific uncrustify.cfg** to use the specified file as the configuration file for the selected tool.

> Select **Use file uncrustify.cfg in <$HOME>** or **Use file .astylerc or acstylerc in <$HOME>** to use the specified file in the user's home directory as the configuration file for the selected tool.

> For Clang Format, you can use a predefined style, by selecting the **Use predefined style** radio button, and then selecting the style to use from the list of available styles.
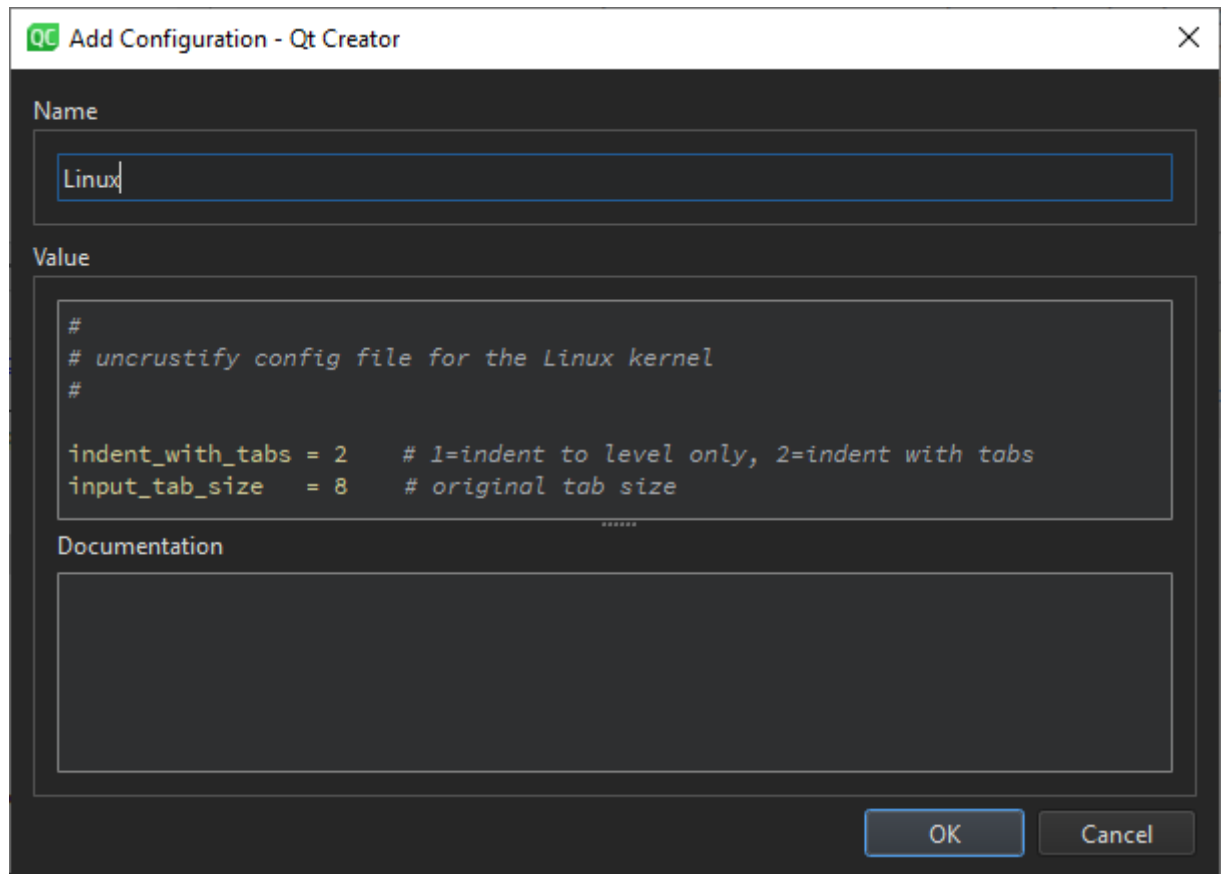
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Select **File** to load the style configuration from the `.clang-format` or `_clang-format` file located in the same directory as the source file or in one of its parent directories.

To specify a fallback style to use if the style configuration file is not available, use the **Fallback style** combo box. Select **Default** to use the default style. Select **None** to skip formatting.

> Select the **Use customized style** option, and then **Add** to define your own style.

Define code formatting in the **Add Configuration** dialog. It provides syntax highlighting, auto-completion, and context-sensitive help. For these features, you must have the tool installed.

```
QC Add Configuration - Qt Creator                                        ✕

Name

Linux

Value

#
# uncrustify config file for the Linux kernel
#

indent_with_tabs = 2    # 1=indent to level only, 2=indent with tabs
input_tab_size   = 8    # original tab size

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                                            OK            Cancel
```

12. Select **Edit** > **Preferences** > **Beautifier** > **Artistic Style**, **ClangFormat**, or **Uncrustify** > **Format Current File** to format the currently open file.

    You can create keyboard shortcuts for the functions.

In addition, ClangFormat provides the **Format at Cursor** command. If you select it when no text is selected, the syntactic entity under the cursor is formatted. The **Disable Formatting for Selected Text** command wraps selected lines within `// clang-format off` and `// clang-format on`.

Uncrustify provides the **Format Selected Text** command. If you select it when no text is selected, the whole file is formatted by default. To disable this behavior, deselect the **Format entire file if no text was selected** check box.

‹ Applying Refactoring Actions   Configuring the Editor ›

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