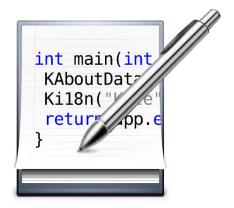
Anders Lund Seth Rothberg Dominik Haumann T.C. Hollingsworth



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Abstract

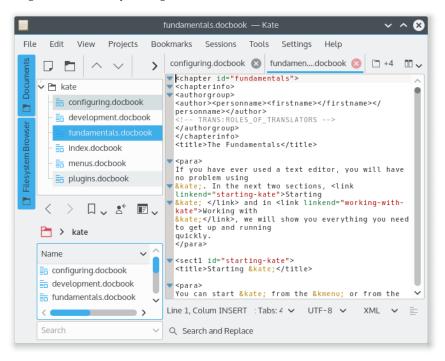
Kate is a programmer's text editor by KDE. This handbook documents Kate Version 22.08

Chapter 1

Introduction

Welcome to Kate, a programmer's text editor by KDE. Some of Kate's many features include configurable syntax highlighting for languages ranging from C and C++ to HTML to bash scripts, the ability to create and maintain projects, a multiple document interface (MDI), and a self-contained terminal emulator.

But Kate is more than a programmer's editor. Its ability to open several files at once makes it ideal for editing UNIX[®]'s many configuration files. This document was written in Kate.



Editing this manual...

Chapter 2

The Fundamentals

If you have ever used a text editor, you will have no problem using Kate. In the next two sections, Starting Kate and in Working with Kate, we will show you everything you need to get up and running quickly.

2.1 Starting Kate

You can start Kate from the application launcher or from the command line.

2.1.1 From the Menu

Open the KDE program menu by clicking on the application launcher icon on the toolbar at the bottom left of your screen. This will raise a menu. Move your cursor up the menu to the $Applications \rightarrow Utilities \rightarrow Advanced Text Editor Kate menu item.$

2.1.2 From the Command Line

You can start Kate by typing its name on the command line. If you give it a file name, as in the example below, it will open or create that file.

```
%kate myfile.txt
```

If you have an active connection, and permission, you can take advantage of KDE's network transparency to open files on the internet.

```
%kate ftp://ftp.kde.org/pub/kde/README
```

To change the directory for temporary files, which defaults to /tmp set the TMPDIR environment variable before starting Kate, e.g.

```
%mkdir /tmp/kate -p && export TMPDIR=/tmp/kate && kate
```

2.1.2.1 Command Line Options

Kate accepts following command line options:

kate --help

This lists the options available at the command line.

kate -s --start name

Starts Kate with the session name. The session is created if it does not exist already. If a Kate instance running the specified session exists, the specified files are loaded in that instance.

kate -p --pid PID

Only reuses an instance with the specified PID (Process ID).

kate -e --encoding encoding URL

Uses the specified encoding for the document.

kate -1 --line line URL

Navigates to the specified line after opening the document.

kate -c --column column URL

Navigates to the specified column after opening the document.

kate -i --stdin

Reads the document content from STDIN. This is similar to the common option – used in many command line programs, and allows you to pipe command output into Kate.

kate --startanon

Start Kate with a new anonymous session, implies -n.

kate -n --new

Force start of a new Kate instance (is ignored if start is used and another Kate instance already has the given session opened), forced if no parameters and no URLs are given at all

kate -b --block

If using an already running Kate instance, block until it exits, if URLs given to open.

You can use Kate with this option as editor for typing in commit messages for version control systems like Git or Subversion. These systems expect to block the editor till you have entered your message, because they then open the temporary file, which would be empty if Kate immediately returned to the caller.

This option is also needed with KIO (KDE Input/Output), if you open a remote file (which has been downloaded to a temporary) and should be reuploaded, after you saved it.

kate --tempfile

When used, the specified files are treated as temporary files and deleted (if they are local files and you have sufficient permissions) when closed, unless they were modified since they were opened.

kate --desktopfile filename

The base file name of the desktop entry for this application.

This is in particular useful for wrapper applications and applications having in general multiple desktop files. Thus each desktop file can have its own command line for the Exec entry.

kate --author

Lists Kate's authors in the terminal window.

kate -v --version

Lists version information for Kate.

kate --license

Shows license information.

2.1.3 Drag and Drop

Kate uses the KDE Drag and Drop protocol. Files may be dragged and dropped onto Kate from the Desktop, the filemanager Dolphin or some remote FTP site opened in one of Dolphin's windows.

2.2 Working with Kate

Quick Start will show you how to toggle four simple options that will let you configure some of Kate's more powerful features right away. Shortcuts lays out some of the default keystroke shortcuts for those who can't or don't want to use a mouse.

2.2.1 Quick Start

This section will describe some of the items on the **View** menu so that you can quickly configure Kate to work the way you want it.

When you start Kate for the first time you will see two windows with white backgrounds. Above the two windows is a toolbar with the usual labeled icons. And above that, a menubar.

The left-hand window is a side bar. It combines the **Documents** and **Filesystem Browser** windows. Switch between the two by clicking on the tabs to the left of the window.

If you've started Kate with a file, the right-hand window will show the file you are editing and the **Documents** on the side bar will show the name of the file. Use the **Filesystem Browser** window to open files.

You can toggle all sidebar windows on and off in **View** → **Tool Views** menu or use **Ctrl+Alt+Shift+F**. This menu offers you your first glimpse into Kate's power and flexibility.

In **Tool Views** you have a list of all enabled plugins. Click the checkbox in front of each item or click with the left mouse button on the tool buttons in the sidebar to toggle this tool view on and off.

2.2.2 Shortcuts

Many of Kate's keystroke commands (shortcuts) are configurable by way of the Settings menu. By default Kate honors the following key bindings.

F1	Help
Shift+F1	What's this?
Ctrl+N	New document
Ctrl+L	Save All
Ctrl+O	Open a document
Ctrl+Alt+O	Quick Open
Ctrl+Shift+F	Full Screen Mode
Ctrl+Shift+,	Configure Kate
Ctrl+W / Ctrl+Esc	Close
Ctrl+Q	Quit - close active copy of editor
Ctrl+Alt+Shift+F	Show Sidebars
Ctrl+Shift+T	Split Horizontal
Ctrl+Shift+L	Split Vertical
F8	Next Split View
Shift+F8 / Ctrl+Esc	Previous Split View

Ctrl+Shift+R	Close Current View
Alt+Right	Next Tab
Alt+Left	Previous Tab

Additionally you can use the shortcuts provided by the KatePart component and by all activated Kate plugins.

2.3 Working With the KateMDI

2.3.1 Overview

Window, View, Document, Frame, Editor... What are they all in the terminology of Kate, and how do you get the most out of it? This chapter will explain all of that, and even more.

2.3.1.1 The Main Window

The Kate Main Window is a standard KDE application window, with the addition of side bars containing tool views. It has a menubar with all the common menus, and some more, and a toolbar providing access to commonly used commands.

The most important part of the window is the editing area, by default displaying a single text editor component, in which you can work with your documents.

The docking capabilities of the window is used for the tool windows of any plugin enabled in the settings dialog.

Tool views can be positioned in any sidebar, to move a tool right click its sidebar button and select from the right mouse button menu

A tool view can be marked as *persistent* in the right mouse button menu for its sidebar button. The sidebar can contain more tools at one time so that when a tool is persistent other tools can be shown simultaneously.

If a plugin has configuration options you can use the first item in the context menu to open the corresponding page in Kate's settings dialog.

2.3.2 The Editor area

Kate is capable of having more than one document open at the same time, and also of splitting the editing area into any number of frames, similar to how for example Konqueror or the popular emacs text editor works. This way you can view several documents at the same time, or more instances of the same document, handy for example if your document contains definitions in the top that you want to see often for reference. Or you could view a program source header in one frame, while editing the implementation file in another.

When a document is available in more than one editor, changes made in one editor will immediately be reflected in the others as well. This includes changing the text as well as selecting text. Search operations or cursor movement is only reflected in the current editor.

It is currently not possible to have more instances of the same document open in the sense that one instance will be edited while the other will not.

When splitting an editor into two frames, it is divided into two equally sized frames, both displaying the current document of that editor. The new frame will be at the bottom (in the case of a horizontal split) or at the right (for a vertical split). The new frame gets the focus, which is visualized by the blinking cursor bar in the focused frame.

2.4 Using Sessions

Sessions is how Kate lets you keep more than one list of files and GUI configuration around. You can have as many named sessions as you want, and you can use unnamed or anonymous sessions for files you want to use only once. Currently Kate can save the list of open files, and the general window configuration in the session; future versions of Kate may add more features that can be saved in sessions. With the introduction of sessions, Kate also allows you to open any number of instances of the application instead of just one as it used to do as the default behavior.

Sessions are supported in three areas:

- Command line options that lets you select and start sessions when launching Kate from the command line.
- *The Sessions menu* that lets you switch, save, start and manage your sessions.
- Configuration options that lets you decide how sessions generally should behave.

When starting a new session, the GUI configuration of **Default Session** is loaded. To save window configuration in the default session, you need to enable saving window configuration in the sessions configuration page of the configuration dialog and then load the default session, set up the window as desired and save the session again.

When a named session is loaded, Kate will display the session name at the start of the window title, which then has the form 'Session Name: Document name or URL - Kate'.

When opening files on the command line with --start name or if a session is selected using the session chooser, the specified session is loaded prior to the files specified on the command line. To open files from the command line in a new, unnamed session, configure Kate to start a new session as default in the session page of the configuration dialog or use --start with an empty string: ''.

Since Kate 2.5.1 the PID of the current instance is exported to the environment variable KATE_PID. When opening files from the built in terminal Kate will automatically select the current instance if nothing else is indicated on the command line.

2.5 Quick Open

To be able to quickly open/switch between files, Kate comes with a built-in quick open dialog. You can open it with **Ctrl+Alt+O**.

Quick open can show all open documents in Kate as well as all files in open projects. To be able to see project files, you need to enable Project Plugin.

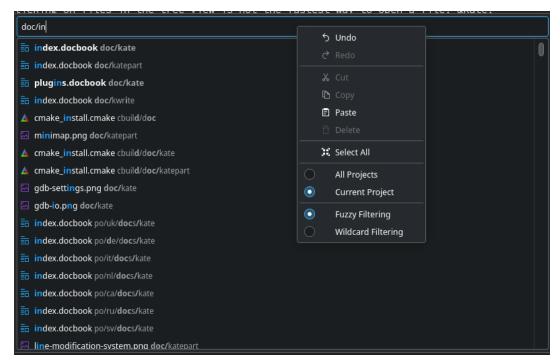
2.5.1 Using Quick Open

Using quick open is very simple. Once you open it, just type the name or portions of the name of the file you want to open and quick open will filter the list based on what you typed. Hitting **Enter** opens the selected file, while **Esc** hides the quick open.

By default, only the file name is matched while filtering. If you want to match path, you need to have a "/" in the typed text. For example: "doc/index" will match all the files that contain "index" inside the folder "doc".

The documents which are already open are highlighted in bold and are listed at the top when the dialog opens. Also, when quick open shows up the previous open document is already selected so you can just press **Enter** and it will take you to that document.

2.5.2 Configuring Quick Open



Quick open provides a couple of config options. To access these options, right-click in the input line edit.

Currently available options are:

Current Project - Show files from current project only
All Projects - Show files from all open projects
Fuzzy Filtering - Use fuzzy matching algorithm to filter files
Wildcard Filtering- Use wildcard matching to filter files

2.6 Getting Help

2.6.1 With Kate

This manual

Offers detailed documentation on all menu commands, configuration options, tools, dialogs, plugins etc. as well as descriptions of the Kate window, the editor and various concepts used in the application.

Press F1 or use the $Help \rightarrow Kate\ Handbook$ menu topic to view this manual.

What's This Help

What's This help offers immediate help with single elements of graphical windows, such as buttons or other window areas.

We strive to provide What's This help for any elements for which it makes sense. It is available throughout the configuration dialog, and in many other dialogs as well.

To employ What's This help, press **Shift+F1** or use the $Help \rightarrow What's$ This menu item to enable What's This mode. The cursor will turn into an arrow with a question mark, and

you can now click any element in the window to read the What's This help for that element, if it is available.

Help Buttons in Dialogs

Some dialogs have a **Help** Button. Pressing it will start the KHelpCenter and open the relevant documentation.

2.6.2 With Your Text Files

Kate does not (yet!) provide any means for reading document related documentation. Depending on the file you are editing, you may find the Built in Terminal Emulator helpful for viewing related UNIX® manual pages or info documentation, or you can use Konqueror.

2.6.3 Articles on Kate

Kate's homepage provides some Articles and Howtos with further information beyond the scope of this handbook.

Chapter 3

Working with the Kate Editor

For information about the basics of working with the editor component underlying Kate, see the Working with the KatePart Editor chapter of the KatePart Handbook.

Chapter 4

Working with Plugins

Anders Lund

You can enable the individual plugins in the configuration dialog, which also provides access to additional configuration options for plugins that require it.

4.1 Kate Application Plugins

Kate plugins are additional functions for the Kate editor. They can add extra menus and shortcuts, and extend Kate's features. You can install as many or as few as you like, from within Kate. Open Kate's configuration dialog with **Settings** \rightarrow **Configure Kate...** Select **Application** \rightarrow **Plugins** to choose the wanted plugins.

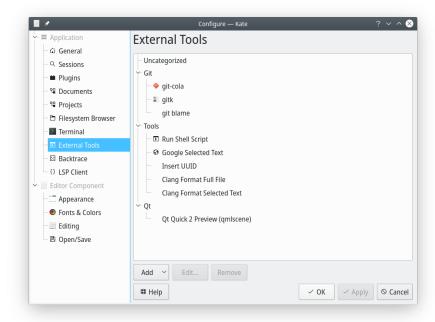
The available application plugins are:

- External Tools Run external tools and applications
- Backtrace Browser C/C++ Backtrace navigation tool view
- Build Plugin Compile or Make and parse error messages
- Close Except/Like Close group of documents based on a common path or file extension
- Color Picker Show preview for known color names
- Colored Brackets Colored brackets for readability
- CTags Look up definitions/declarations with CTags
- Document preview Preview the document in the target format.
- Document switcher Quick document switching with Alt+Tab behavior
- File System Browser File system browser tool view
- Document Tree View Displays the open files in a file tree
- GDB Provides a simple GDB frontend
- Project Plugin Integration with Git and other source control systems
- Replicode Constructivist AI language and runtime
- LSP Client LSP client providing code navigation and code completion for many languages

- Search & Replace Search and replace in documents, folders, or projects
- Snippets tool view Tool view embedding the snippets management
- Keyboard Macros Record and play keyboard macros (i.e., keyboard action sequences)
- SQL Plugin Execute query on SQL databases
- Symbol Viewer Extract and show reference symbols from source
- Terminal tool view Have a terminal at the ready, using KDE's Konsole widget
- Text Filter Process text using terminal commands
- XMLCompletetion Lists XML elements, attributes, attribute values and entities allowed by DTD
- XML Validation- Validates XML files using xmllint

4.2 External Tools

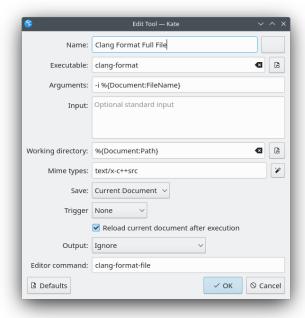
The **External Tools** plugin allows to invoke external applications with data related to the current document, for example its URL, directory, text or selection. Once enabled, a config page appears as depicted below that allows to change or remove existing tools. Similarly, new tools can be added to your liking. The tools will then appear in the **External Tools** submenu of the **Tools** menu of the application.



The config page allows to add new external tools by clicking on the **Add** button. In this case, a popup menu appears where one can either add a new external tool, add an existing tool from a predefined list, or add a new category to organize the external tools into categories. Similarly, the existing tools can be modified either by double-click or by invoking **Edit...**, and **Remove** removes the selected tools.

4.2.1 Configuring External Tools

Editing a tool opens a config dialog that allows fine-grained configuration of the tool:



As can be seen, many details can be defined, namely:

Name, the name of the tool, which will later appear in the menu.

Icon, optional icon that is visible in the menu.

Executable, executable including either a full path, or your executable must be in the PATH environment variable.

Arguments, optional arguments that are passed to the executable.

Input, optional input that is passed to the process via stdin.

Working directory, the working directory the tool will be started in. If empty, the working directory is set to the current document's path.

Mime types, if set, the tool is active only if the current document's mime type matches.

Save, when invoked, saves none, the current document, or all documents.

Trigger, a trigger to execute this tool. A trigger will only affect the currently active document and will only execute if the mimetype of current active document matches the mimetype of the external tool.

Following triggers are available:

None, this is the default, it means the tool has no trigger.

Before Save, this trigger will execute right before saving the document.

After Save, this trigger will execute the tool after the document was saved.

Reload current document after execution, useful when the current file is modified on disk.

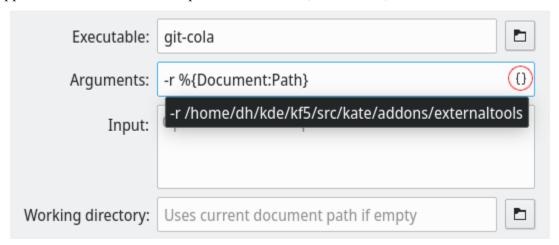
Output, the output defines the target of stdout. It is either set to Ignored, Insert at Cu rsor Position, Replace Selected Text, Replace Current Document, Append to Current Document, Insert in New Document, Copy to Clipboard, or Display in Pane.

Editor command, optional command that can be used to invoke the external tool via the built-in command line.

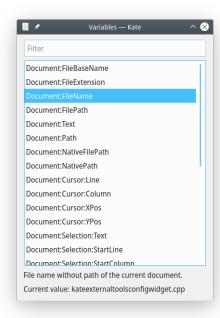
The button **Defaults** is visible only for tools that are shipped with Kate. When clicked, all tool's settings reverted to default (aka factory) values.

4.2.2 Variable Expansion

Some editing fields such as the **Executable**, the **Arguments**, the **Input** and the **Working Directory** support variables that are expanded on tool invocation. This is indicated by the icon {} that appears once one of these text input fields has focus (see red circle):



Hovering over one of these text input fields also shows a tooltip with the current expanded text. Further, clicking on the {} action will open a dialog that lists all available variables:



This feature provides a lot of flexibility when defining an external tool since all variables of the form $\{\ldots\}$ are expanded when the tool gets invoked. There are two kind of variables supported:

• %{variable-name}

• %{variable-name:<value>}

The first form <code>%{variable-name}</code> simply replaces the variable with its contents. For instance, the variable <code>%{Document:FileName}</code> is replaced by the current document's filename without its path. The second form <code>%{variable-name:<value>}</code> gets the <code><value></code> as contents. For example, this can be used to expand an environment variable with <code>%{ENV:HOME}</code>, or one can obtain the current date in the preferred format like <code>%{Date:yyyy-MM-dd}</code>.

Supported variables include:

Document:FileBaseName: File base name without path and suffix of the current document.

Document:FileExtension: File extension of the current document. **Document:FileName**: File name without path of the current document.

Document:FilePath: Full path of the current document including the file name

Document: Text: Contents of the current document.

Document: Path: Full path of the current document excluding the file name.

Document: NativeFilePath: Full document path including file name, with native path separator (backslash on Windows).

Document: NativePath: Full document path excluding file name, with native path separator (backslash on Windows).

Document:Cursor:Line: Line number of the text cursor position in current document (starts with 0).

Document: Cursor: Column: Column number of the text cursor position in current document (starts with 0).

Document:Cursor:XPos: X component in global screen coordinates of the cursor position.

Document:Cursor:YPos: Y component in global screen coordinates of the cursor position.

Document: Selection: Text: Text selection of the current document.

Document: Selection: StartLine: Start line of selected text of the current document. **Document: Selection: StartColumn:** Start column of selected text of the current document

Document: Selection: EndLine: End line of selected text of the current document.

Document:Selection:EndColumn: End column of selected text of the current document.

Document: RowCount: Number of rows of the current document.

Document: Variable: <variable>: Expand arbitrary document variables.

Date:Locale: The current date in current locale format.

Date: ISO: The current date (ISO).

Date: <value>: The current date (QDate formatstring).

Time:Locale: The current time in current locale format.

Time: ISO: The current time (ISO).

Time: <value>: The current time (QTime formatstring).

ENV: <value>: Access to environment variables.

JS: < expression >: Evaluate simple JavaScript statements.

PercentEncoded: <text>: Percent encoded text.

UUID: Generate a new UUID.

4.2.3 List of Default Tools

Several tools are shipped by default. However, if you have more useful tools please contribute those to kwrite-devel@kde.org so that we can add them to this list. All default tools are visible in the list view by default. However, all tools can be changed to your liking, including the category or even deleting tools. Deleted tools can be added back again by clicking on the **Add** button in the config page as described above.

GIT-COLA

git-cola is a graphical git client that enables you to easily stage and commit changes. If installed, it is available also through the command line by typing git-cola

Name: git-cola Icon: git-cola

Executable: git-cola

Arguments: -r %{Document:Path}
Editor command: git-cola

GITK

gitk is a git client as well that allows to nicely visualize the git history.

Name: gitk

Icon: git-gui

Executable: gitk

Working directory: %{Document:Path}

Editor command: gitk

GIT BLAME

Starts git blame to easily follow git changes in the current file.

Name: git blame Executable: git

Arguments: gui blame %{Document:FileName}

Save: Current Document

Working directory: %{Document:Path}

Editor command: git-blame

RUN SHELL SCRIPT

Starts an external konsole in which the current document is executed. The script needs to state the interpreter in the first line via a shebang #!/path/interpreter.

Name: Run Shell Script Icon: system-run Executable: konsole

 $\label{locument:Path} \begin{tabular}{ll} \bf Arguments: -e sh -c "cd %{Document:Path} && pwd && chmod -vc a+x %{Document:FileName} && ./%{Document:FileName}; echo Press any key to continue. && read && ...$

-n 1"

Save: Current Document

Working directory: %{Document:Path}

Editor command: run-script

GOOGLE SELECTED TEXT

Search in google for the selected text.

Name: Google Selected Text

Icon: globe

Executable: xdg-open

Arguments: "https://www.google.com/search?q=%{Document:Selection:Text}"

Editor command: google

INSERT UUID

Inserts a new UUID each time this action is invoked.

Name: Insert UUID Executable: echo Arguments: %{UUID}

Output: Insert at Cursor Position

Editor command: uuid

CLANG FORMAT FULL FILE

Runs clang-format on the current file on disk. The document is reloaded afterwards.

Name: Clang Format Full File **Executable**: clang-format

Arguments: -i %{Document:FileName}
Working directory: %{Document:Path}

Save: Current Document

Reload: Yes

Editor command: clang-format-file

CLANG FORMAT SELECTED TEXT

Runs clang-format just on the selected text in the current document.

Name: Clang Format Selected Text

Executable: clang-format

Arguments: -assume-fileName: %{Document:FileName}

Working directory: %{Document:Path}

Input: %{Document:Selection:Text}
Output: Replace Selected Text

Editor command: clang-format-selection

QT QUICK 2 PREVIEW (QMLSCENE)

Previews the current qml file in qmlscene.

Name: Qt Quick 2 Preview (qmlscene)

Executable: qmlscene

Arguments: %{Document:FileName}

Save: Current Document

Working directory: %{Document:Path}

Editor command: qml-preview

JSON FORMAT FULL FILE

Format the entire JSON file.

Name: JSON Format Full File Icon: application-json

Executable: jq

Arguments: %{Document:FileName}

Save: Current Document

Working directory: %{Document:Path}

Output: Replace Current Document Editor command: json-format-file

XML FORMAT FULL FILE

Format the entire XML file.

Name: JSON Format Full File Icon: application-xml

Executable: xmllint

Arguments: --format %{Document:FileName}

Save: Current Document

Working directory: %{Document:Path}
Output: Replace Current Document

Editor command: xml-format-file

4.3 Backtrace Browser Plugin

4.3.1 Using the Backtrace Browser Plugin

This plugin is meant for developers and probably of little use for users. It shows a backtrace delivered by gdb in a listview in a Kate toolview. Clicking on an item opens the selected file and jumps to the correct line number. It works for backtraces generated on your own machine, but it will also work for backtraces from other people, i.e. with /home/dummy/qt-copy/…/qwidg et.cpp will still be found on other machines. For that to work, you have to index the directories where the source code is located.

Sometimes there are several files with the same name, e.g.

```
kdegraphics/okular/generators/dvi/config.h
kdepim-runtime/resources/gmail/saslplugin/config.h
```

To pick the right choice, the plugin picks the last two parts of the URL, in this case this would be

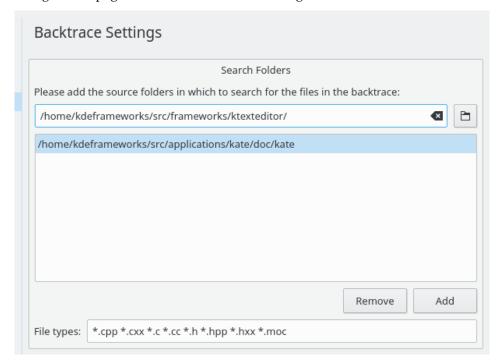
```
dvi/config.h
saslplugin/config.h
```

And then usually the plugin finds the correct one.

Indexing master and a branches of course will lead to a clash.

4.3.2 Configuration

On the configuration page add the directories containing the source code.



Configure Paths in Backtrace browser tool view

Clicking **OK** will start indexing. When indexing is finished, open the toolview **Backtrace Browser**.

Now you can load a backtrace from the clipboard (e.g., when you clicked **Copy to Clipboard** in DrKonqi) or from a file.

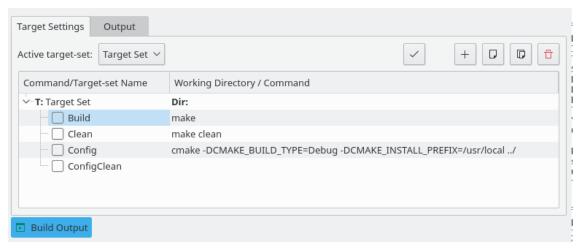
4.4 Build Plugin

4.4.1 Introduction

The Build plugin allows you to run actions like build, clean and compile on a project.

4.4.2 Using the Build Plugin

The Build plugin adds a **Build Output** tool view at the bottom and a **Build** menu on the menubar. The tool view can be used to configure build target settings, while the menu can be used to perform build, clean and compile actions.



The **Build Output** tool view has two tabs:

- Target Settings
- Output

4.4.2.1 Target Settings tab

The target settings tab can be used to configure various build targets and define targets sets.

To change the names or commands double click on the entries in the table and use the dropdown box to select the active target set. Use the checkbox in front of each target to define a default.

A new target set contains several configuration options:

Working Directory

You can set the path to the project here. Leave this empty to use the directory the current document is located in.

Build

This option lets you define the build command. It is set to **make** by default.

Clean

The option lets you define the clean command. It is set to **make clean** by default.

Config

This option lets you define the config command. It is set to cmake - DCMAKE_BUILD_TYPE=Debug -DCMAKE_INSTALL_PREFIX=/usr/local ../ by default.

On the top this plugin has a toolbar with the following buttons:

<u> </u>	Build the selected target
+	Add a new build target
	Create a new build target set
	Copy a command or target set
\Box	Delete the current command or target set

4.4.2.2 Output tab

The **Output** tab shows the console output generated by the last command.

Use the slider at the top to show or hide categories of output:

Full Output, Parsed Output, Errors and Warnings or Only Errors

Each line contains a message and the file name and line number if available. Clicking on the error or warning takes you to the appropriate file and places the cursor on the corresponding line number.

To navigate to the previous error, press Alt+Shift+Left. To navigate to the next error, press Alt+Shift+Right.

4.4.3 Menu Structure

Build → **Select Target**

Select from a list of targets configured by the user.

Build → **Build Default Target**

Builds the target defined as default in the active target set.

$\textbf{Build} \rightarrow \textbf{Build Previous Target}$

Switch to the previous target configured by the user.

$Build \rightarrow Stop$

Stop building a target.

Build → **Previous Error (Ctrl+Alt+Left)**

Moves the cursor to the location of the previous error in the document.

$Build \rightarrow Next \; Error \; (Ctrl+Alt+Right)$

Moves the cursor to the location of the next error in the document.

4.4.4 Thanks and Acknowledgments

The Kate Build Plugin was written by Kåre Särs.

Special thanks to Google Code-In 2011 participant Salma Sultana for writing much of this section.

4.5 Close Except/Like Plugin

4.5.1 Introduction

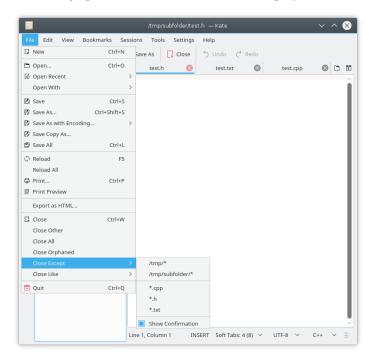
This plugin allows you to close a group of documents based on their extension and path.

4.5.2 Using the Close Except/Like Plugin

Assumed you have these documents opened in Kate:

```
/tmp/subfolder/test.h
/tmp/test.cpp
/tmp/test.txt
```

Then you have the following options to close documents as displayed in the screenshot:



Use the checkbox in the last item of the list to enable or disable a confirmation dialog. The selected option will be applied to both close actions.

4.5.3 Menu Structure

File → **Close Except**

Close all open documents, *except* those which match the path or file extension selected from the submenu.

$File \rightarrow Close\ Like$

Close all open documents which match the path or file extension selected from the submenu.

4.6 Color Picker Plugin

4.6.1 Introduction

This plugin adds an inline color preview/picker to colors in the text (e.g., #FFFFFF, white).

To load this plugin open Kate's configuration dialog under **Settings** \rightarrow **Configure Kate...**. Then select **Color Picker** and close the dialog.

4.6.2 Configuration

On the Color Picker settings page in Kate's configuration, you can configure the following options of the plugin behavior.

Show preview for known color names

Whether to show the color picker for known color names (e.g., skyblue). See this page for the list of colors.

Place preview after text color

Whether to place the inline preview after text color in the text.

Hex color matching

Here, you can choose the best matching option for the colors used in your code.

4.7 Colored Brackets

4.7.1 Introduction

Colored brackets plugin colors matching bracket pairs in different colors to enhance readability. However, not all brackets get colored. A bracket whose matching opener or closer is not visible will be ignored. Similarly, a bracket pair that is the sole bracket pair on a line will not get colored.

4.7.2 Configuration

The plugin doesn't provide any configurations.

4.8 CTags Plugin

4.8.1 Introduction

CTags generates an index (or tag) file of language objects found in source files that allows these items to be quickly and easily located using this plugin in Kate.

A tag signifies a language object for which an index entry is available (or, alternatively, the index entry created for that object).

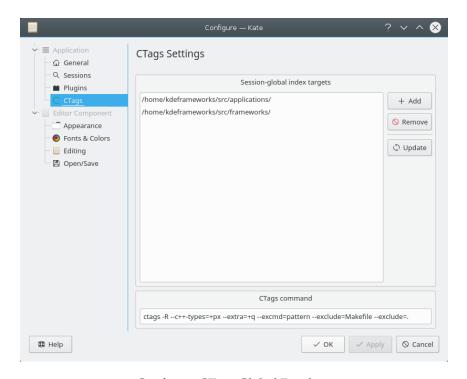
Tag generation is supported for these programming languages.

4.8.2 Configuration

The CTags plugin uses two different database files for the index.

On the CTags settings page in Kate's configuration you can add or remove directories containing the source code and regenerate the common CTags database.

4.8.2.1 Common Index



Configure CTags Global Database

At the bottom of the settings page you can adapt the **CTags command**.

For more information about all available options please read the CTags man page. This man page is available in KHelpCenter and you can also enter the URL *man:/ctags* directly into Konqueror Clicking **Update** will start indexing. When indexing is finished, close the dialog.

4.8.2.2 Session Index

To configure the session index open the CTags view.

Index Targets

On this tab you can add or remove directories containing the source code and manually regenerate the session specific CTags database.

Database



Configure CTags Session Database

Select another CTags database file, configure the CTags command or revert to the default command.

4.8.3 Using the CTags Plugin

You place the mouse cursor on the language object like function, symbol etc. that you are interested in and then select one of the actions in the **CTags** menu to jump to the line and file where the object is defined or declared.

By default the actions in the **CTags** menu have no shortcuts assigned. Use the keyboard shortcut editor to configure your own shortcuts.

Alternatively use the search field on the **Lookup** tab of the CTags view.

Entering characters into the search field will start the search and display matching names of language objects like functions, classes, symbols etc. together with type and filename.

Select an item in the list to jump to the corresponding line in the source file.

4.8.4 Menu Structure

CTags → Jump back one step

Navigate back in the history to the last visited tag.

CTags → **Lookup Current Text**

Opens the **Lookup** tab of the CTags view and displays all language objects matching the current text selection in the list.

$CTags \rightarrow Go to Declaration$

If the cursor is in a definition object this will open the document containing the corresponding declaration if needed, activate its view and place the cursor at the start of the declaration.

$CTags \rightarrow Go to Definition$

If the cursor is in a declaration object this will open the document containing the corresponding definition if needed, activate its view and place the cursor at the start of the definition.

4.9 Document Preview Plugin

4.9.1 Introduction

The plugin enables a live preview of the currently edited text document in the final format in the sidebar. So when editing e.g. a Markdown text or an SVG image, the result is instantly visible next to the source text.

For the display the plugin uses that KParts plugin which is currently selected as the preferred one for the MIME type of the document. If there is no KParts plugin for that type, no preview is possible.

To change the preferred plugin open the **File Associations** module in the System Settings and edit the **Services Preference Order** on the **Embedding** tab.

MIME type	KParts plugin
Markdown text	KMarkdownWebViewPart or OkularPart
SVG image	SVGPart
Qt™ UI files	KUIViewerPart
DOT graph files	KGraphviewerPart

Table 4.1: Some available KParts plugins

4.9.2 Menu Structure

$\textbf{View} \rightarrow \textbf{Tool Views} \rightarrow \textbf{Show Preview}$

Toggle the display of Kate's Document preview in a sidebar.

4.9.3 Interface

The buttons at the top of the preview window provide these actions:

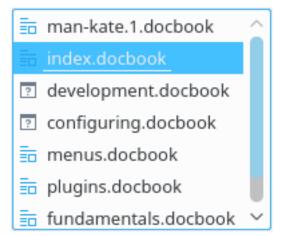
- Lock the preview to a given document. Selecting this option ensures that if switching the focus to the view of another document in the same Kate window, the preview will not follow to that document, but keep previewing this document.
- Enable or disable updates of the preview of the current document content
- Manually update the preview of the current document content
- A dropdown menu with actions from the KParts plugin

4.10 Document Switcher Plugin

4.10.1 Menu Structure

$View \rightarrow Last Used Views (Ctrl+Tab), View \rightarrow Last Used Views (Reverse) (Ctrl+Shift+Tab)$

Opens a list with the last viewed documents:



Keep the **Ctrl** key pressed and use the **Tab** key to cycle forward through the list. Additionally press the **Shift** key to reverse the direction.

Keep the shortcut Ctrl+Tab pressed and can use the Up, Down, Home or End keys to navigate in the list. Pressing a char key consecutively will cycle through all items with the first matching in the list. If you release the shortcut keys the view will switch to the selected document in the list.

4.11 File System Browser

The File System Browser is a folder viewer, allowing you to open files from a displayed folder in the current frame.

4.11.1 Menu Structure

$View \rightarrow Tool \ Views \rightarrow Show \ Filesystem \ Browser$

Toggle the display of Kate's Filesystem Browser.

4.11.2 Interface

From the top down, the Filesystem Browser consists of the following elements:

A Toolbar

This contains standard navigations tool buttons:

Sack

Causes the folder view to **cd** to the previously displayed folder in the history. This button is disabled, if there is no previous item.

/ Forward

Causes the folder view to **cd** to the next folder in the history. This button is disabled, if there is no next folder.

Bookmarks

Opens a submenu to edit or add bookmarks and to add a new bookmark folder.

.*

Current Document Folder

This button will cause the folder view to **cd** to the folder of the currently active document if possible. This button is disabled, if the active document is a new, unsaved file, or the folder in which it resides can not be decided.



Options

Short View

Displays only the filenames.

Detailed View

Displays **Name**, **Date** and **Size** of the files.

Tree View

Like Short View, but folders can be expanded to view their contents.

Detailed Tree View

This also allows folders to be expanded, but displays the additional columns available in Detailed View.

Show Hidden Files

Displays files normally hidden by your operating system.

Automatically synchronize with current document

When this option is enabled the filesystem browser will automatically **cd** to the folder of the document currently open in the editing area every time it changes.

A Location Entry

This displays a breadcrumb navigation to the currently open folder, similarly to Dolphin. You can click on a any folder to browse to it, or click on one of the arrows to the left of a folder to select any folders beneath it. You may also select from your list of Places by clicking the leftmost icon in the breadcrumb navigation, which displays an icon that represents your current Place.

You can also click to the right of the breadcrumbs to change them to a text box where you can type the path of a folder to browse. The URL entry maintains a list of previously typed paths. To choose one, use the arrow button to the right of the entry.

TIP

The URL entry has folder auto-completion. The completion method can be set using the right mouse button menu of the text entry.

A Folder View

This is a standard KDE folder view.

A Filter Entry

The Filter entry allows you to enter a filter for the files displayed in the folder view. The filter uses standard globs; patterns must be separated by white space. Example: *.cpp *.h *.moc

To display all files, enter a single asterisk *.

The filter entry saves the last 10 filters entered between sessions. To use one, press the arrow button on the right of the entry and select the desired filter string. You can disable the filter by pressing the **Clear text** button to the left of the autocompletion arrow button.

4.11.3 Configuration

This plugin can be configured on the **Filesystem Browser** page of Kate's configuration.

Toolbar

Configure the buttons on the Filesystem Browser toolbar by moving the ones you want enabled to the **Selected Actions** list, and order them using the arrow buttons at the side of the list.

4.12 The Documents List

4.12.1 Introduction

The documents list displays a list of all documents currently open in Kate. Modified files will have a small **floppy disk** icon on their left to indicate that state.

On the top the Documents list has a toolbar with the following buttons:

J	Create new document
	Open an existing document
^	Previous Document
~	Next Document
	Save the current document
E)	Save the current document under a new name

By default, the Documents list appears in **Tree Mode**, which displays the folder structure surrounding all currently open documents. Also available is **List Mode**, which displays a simple list of all open documents. You can switch modes by right-clicking on the list and selecting from the **View Mode** menu.

If two or more files with the same name (located in different folders) are open in **List Mode**, the names of the second will be prepended '(2)' and so on. The tool-tip for the file will display its full name including the path, allowing you to choose the desired one.

To display a document in the currently active frame, click the document name in the list.

The context menu has some common actions from the File menu.

Additionally there are filemanager actions to rename or delete the file. With **Copy Location** you can copy the full path of the document to the clipboard.

You can sort the list in a few different ways by right clicking the list and selecting from the **Sort By** menu. The options are:

Document Name

Lists the documents alphabetically by their name.

Document Path

Lists the documents alphabetically by the path to them.

Opening Order

Lists the documents in the order of opening.

The document list will per default visualize your history by shading the entries for the most recent documents with a background color. If the document was edited, an extra color is blended in. The most recent document has the strongest color, so that you can easily find the documents you are working on. This feature can be disabled in the Documents page of the configuration dialog.

The default location of the document list in the Kate window is to the left of the editing area.

4.12.2 Menu Structure

View \rightarrow Previous Document (Alt+Up)

Opens the document displayed above the currently open document in the Documents list.

View → Next Document (Alt+Down)

Opens the document displayed below the currently open document in the Documents list.

$View \rightarrow Show Active$

Displays the currently open document in the Documents list.

4.12.3 Configuration

Background Shading

This section allows you to enable or disable the background shading visualization of your recent activity, and choose which colors to use if enabled.

Sort By

Set how you want the document list sorted. This can be set from the right mouse button menu in the document list as well.

View Mode

This provides two options that effect the display of the Documents tool view. The **Tree View** option will display the documents in a tree underneath the folders they are in, while the **List View** option will display a flat list of documents.

Show Full Path

When Tree View and this option are enabled, the folder entries displayed in the Documents tool view will display the full filesystem path to the folder in addition to the name of the folder. It has no effect in List View.

Show Toolbar

When Tree View and this option are enabled, a toolbar with actions like **Save** is displayed above the list of documents. Uncheck this option if the toolbar should be hidden.

Show Close Button

When this option is enabled, Kate will show a close button for opened documents on hover.

4.13 GDB Plugin

4.13.1 Introduction

Kate's GDB plugin provides a simple frontend to the popular GNU Project Debugger.

IMPORTANT

Previous experience with GDB is strongly recommended. For more information on using GDB, visit the GDB website.

You can enable the GDB plugin in the Plugins section of Kate's configuration.

For the plugin to work properly, you must have a source file (of any type supported by GDB) and an executable.

TIP

If you compile using gcc/g++ you might want to use the -ggdb command line argument.

After these preparations are made, open the source file in Kate, enter the path to the executable in the **Settings** tab of the **Debug View** tool view, and select **Debug** \rightarrow **Start Debugging** from the menu to get started.

4.13.2 Menu and Toolbar Structure

All of these options are available in Kate's menus, and many are available on the Debug toolbar as well.

$View \rightarrow Tool \ View \rightarrow Show \ Debug \ View$

Shows a tool view containing GDB output, the GDB command line used, and other settings.

$View \rightarrow Tool \ View \rightarrow Show \ Locals \ and \ Stack$

Shows a list of all currently loaded variables and their values and a GDB backtrace.

$Debug \to Targets$

A submenu containing a list of targets (executables).

Debug → **Start Debugging**

Starts GDB with a target.

Debug → Kill / Stop Debugging

Stops GDB.

Debug → **Restart Debugging**

Restarts GDB.

Debug → **Toggle Breakpoint / Break**

Set a breakpoint at the current cursor position.

$Debug \to Step\ In$

Execute the present statement (function call will be debugged).

Debug → **Step Over**

Execute the present statement (function call will not be debugged).

Debug → **Step Out**

Resumes execution until the program that is executing terminates.

Debug \rightarrow **Move PC**

Move program counter (next execution).

$\textbf{Debug} \rightarrow \textbf{Run To Cursor}$

Runs the program until it reaches current cursor position.

Debug → **Continue**

Ignores any breakpoints and executes program until it terminates (successfully or not).

Debug → **Print Value**

Prints the value of the variable that the cursor is currently pointing to.

Settings \rightarrow **Toolbars Shown** \rightarrow **GDB Plugin**

Display the debugging toolbar.

4.13.3 Debug View

The **Debug View** tool view consists of several tabs:

GDB Output

Contains output from GDB and a GDB command line.

The **Output** tab displaying the output from a debugging session.

Settings

Executable

Path to the target (executable) for debugging.

Working Directory

The current working directory provided to the target.

Arguments

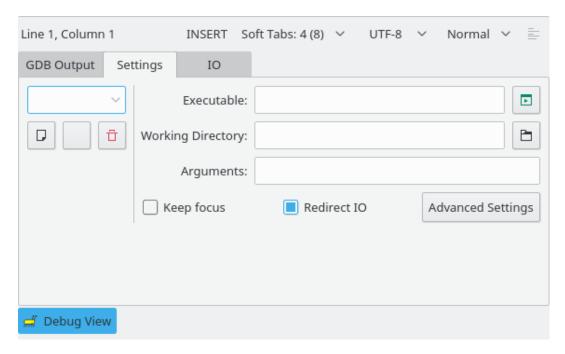
Arguments passed to the program.

Keep focus

Keeps focus on the GDB command line.

Redirect IO

Opens a new **IO** tab in the **Debug View** where you can view output and provide input to the running program.



The **Settings** dialog displaying the configuration of a debugging session.

IO

Contains an area that displays output from the running program and a command line where you may provide input to it.



The **IO** tab displaying output from a simple test program.

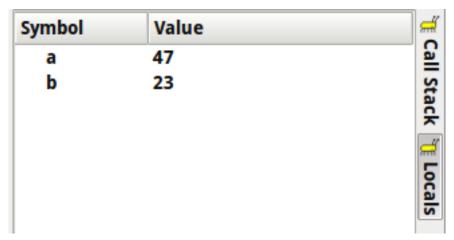
4.13.4 Call Stack and Locals

The **Call Stack** tool view contains a list of the formatted backtrace returned from GDB.



The GDB Plugin's **Call Stack** tool view.

The **Locals** tool view contains a list of all currently loaded variables from the program and their corresponding values.



The GDB Plugin's **Locals** tool view.

4.13.5 Thanks and Acknowledgments

Special thanks to Google Code-In 2011 participant Martin Gergov for writing much of this section.

4.14 Project Plugin

4.14.1 Introduction

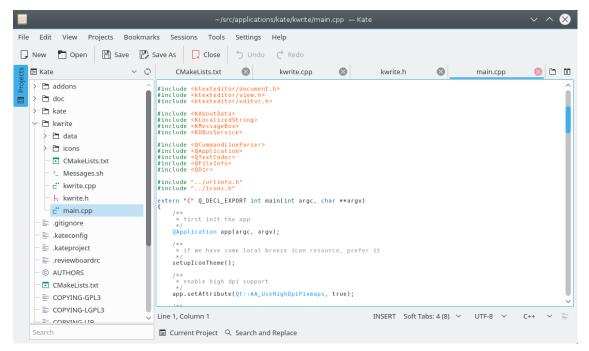
The basic idea of the Project plugin is to have a structured list of files belonging to the project with the following properties:

- 1. Provide a structured view of the files
- 2. Make it easy and very fast to open and switch projects
- 3. Support search and replace for a project

- 4. Provide simple auto completion
- 5. Make it simple to quickly open files in the project
- 6. Support for building the project

4.14.2 Structured View of the Files

Once the Project plugin is loaded in the Kate configuration page, open a file in a project and a sidebar appears that lists all projects as well as the project files as follows:



As you can see, the currently active project is 'Kate', and its contents is listed in the tree view. Clicking on files in the tree view opens the file in the editor. Further, a context menu is provided with which you can open files with other applications, such as a .ui file with Qt Designer.

You can filter the items by typing parts of the file name you are looking for into the search bar at the bottom of the list.

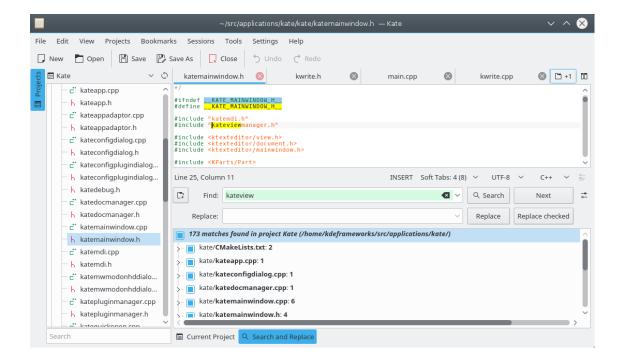
4.14.3 Switching Projects

The idea is that you never have to open a project manually, this is even not supported at all. Hence, what happens if you open a file, the Project plugin quickly scans the folder and its parent folders for a .kateproject file. If found, the project is automatically loaded.

Furthermore, if you open another document in Kate, that belongs to another project, the Project plugin automatically switches the current project. So intuitively, always the correct project is active. Of course, you can also switch the currently active project using the combo box.

4.14.4 Search and Replace in Projects

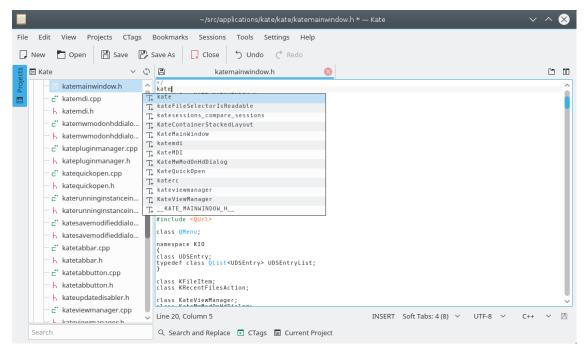
Kate has a Search and Replace plugin that shows up in the bottom sidebar. If a project is loaded, open the Search and Replace sidebar, and switch to the mode to search and replace in the current project:



4.14.5 Simple Auto Completion

With the knowledge of all files belonging to a project, the Project plugin provides simple auto completion facilities based on CTags. If a project is initially opened, CTags parses all project files in a background thread and saves the CTags information to /tmp. This file then is used to populate the auto completion popup in Kate.

In contrast, without this auto completion, Kate is only capable of showing auto completion items based on the words in the current file. So the auto completion provided by the Project plugin is much more powerful.



If CTags is missing, a passive popup warns you about this issue. It is also noteworthy, that the CTags file in /tmp is cleaned up when Kate exits, so the plugin does not pollute any folder with unwanted files.

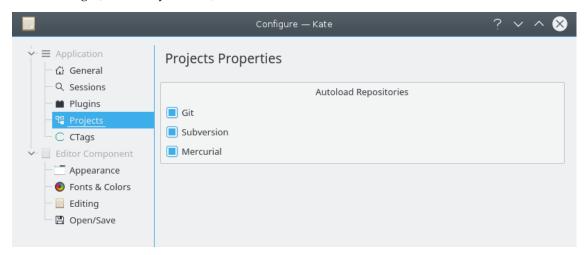
4.14.6 Support for Building the Project

Another feature is to have support for the Build Plugin, so that it automatically is configured correctly.

4.14.7 Creating Projects

4.14.7.1 Loading Projects Automatically

The Project plugin has an auto-loading feature. You can read the file list from the version control system. To this end, auto-loading for the respective version control system needs to be enabled in the settings (enabled by default):



4.14.7.2 Creating Projects Manually

You just have to create a .kateproject file in the root folder of the project. For instance, the 'Kate' .kateproject file looks like this:

The file content is written in JSON syntax. The project name is 'Kate', and the files contained in should be read from Git.

Also supported instead of git is subversion through svn and mercurial through hg. If you do not want to read files from a version control system, you can just invoke kate from command line as:

```
kate /path/to/folder
```

or you can tell it to recursively load files from directories as follows:

Here, subfolders and filters define what's part of the project. You can also mix version control and files based on filters.

If you want to add support for the building, you can write a .kateproject like this:

```
"name": "Kate",
"files": [
    "git": 1
],
"build": {
  "directory": "build",
  "build": "make all",
  "clean": "make clean",
  "install": "make install",
  "targets": [
      "name": "all",
      "build_cmd": "ninja"
      "run_cmd": "./bin/kate"
    },
      "name": "kate",
      "build_cmd": "ninja kate-bin"
  1
}
```

The targets specified above will then appear in the Build Plugin under "Project Plugin Targets". If the

```
"targets" array is specified then
```

[&]quot;build",

[&]quot;clean" and

[&]quot;install" are ignored. Each element in the array specifies a target.

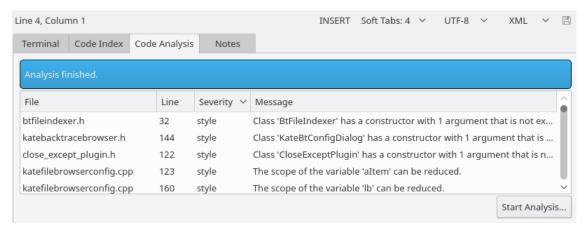
[&]quot;name" is the name of the target,

"build_cmd" will be used to build the target,

In case you have a .kateproject file tracked by a control version system, but you need to tweak the configuration for a particular workspace, you can save those changes to a separated file named .kateproject.local. The content of this file will take precedence over .kateproject.

4.14.8 Current Project

Using $Projects \rightarrow Go \ To \ (Alt+1)$ you can open the Current Project view at the bottom of the editor window with four tabs:



Terminal Panel

A Terminal emulator starting in the root folder of the project.

Code Index

Entering characters into the search bar will start the search and display matching names of functions, classes, symbols etc. together with kind, filename and line number.

Select an item in the list to jump to the corresponding line in the source file.

Code Analysis

Click **Start Analysis** to run a static code analysis for the C and C++ using **cppcheck** and to generate a report showing filename, line number, severity (style, warning etc.) and the issue found.

Select an item in the list to jump to the corresponding line in the source file.

Notes

Text entered in this tab will be saved in the file .kateproject.notes.

4.14.9 The Projects Menu

The **Projects** menu allows you to switch between currently open projects. It is displayed by the Project plugin.

Projects → **Back** (Ctrl+Alt+Left)

Switch to the previous project.

[&]quot;run_cmd" will be used to run the target. Most important of all is

[&]quot;directory", this is where the commands will be executed.

Projects → **Forward** (Ctrl+Alt+Right)

Switch to the next project.

Projects → **Go To (Alt+1)**

Open the **Current Project** view at the bottom of the editor window.

4.15 LSP Client Plugin

The LSP Client plugin provides many language features such as code completion, code navigation or finding references based on the Language Server Protocol.

Once you have enabled the LSP Client in the plugin page, a new page called LSP Client will appear in your Kate configuration dialog.

4.15.1 Menu Structure

If appropriate, a corresponding LSP command is also mentioned in the explanation below, the documentation of which may then provide additional background and interpretation, though it may vary depending on the actual language. The phrase 'current symbol' refers to the symbol corresponding to the current cursor position, as so determined by the language and server implementation.

LSP Client → **Go to Definition**

[textDocument/definition] Go to current symbol definition.

LSP Client \rightarrow Go to Declaration

[textDocument/declaration] Go to current symbol declaration.

LSP Client \rightarrow Go to Type Definition

[textDocument/typeDefinition] Go to current symbol type definition.

$LSP\ Client \rightarrow Find\ References$

[textDocument/references] Find references to current symbol.

LSP Client \rightarrow Find Implementations

[textDocument/implementation] Find implementations of current symbol.

LSP Client → **Highlight**

[textDocument/documentHighlight] Highlight current symbol references in current document.

LSP Client \rightarrow **Hover**

[textDocument/hover] Hover info for current symbol.

LSP Client → **Format**

[textDocument/formatting] [textDocument/rangeFormatting] Format the current document or current selection.

LSP Client → **Rename**

[textDocument/rename] Rename current symbol.

$LSP\ Client \rightarrow Quick\ Fix$

[textDocument/codeAction, workspace/executeCommand] Computes and applies a quick fix for a diagnostic on current position (or line).

LSP Client \rightarrow Show selected completion documentation

Show documentation for a selected item in the completion list.

LSP Client \rightarrow Enable signature help with auto completion

Also show signature help in the completion list.

LSP Client → **Include declaration in references**

Request to include a symbol's declaration when requesting references.

LSP Client → Add parentheses upon function completion

Automatically add a pair of parentheses after completion of a function.

LSP Client → **Show hover information**

Show hover information upon (mouse cursor) hover. Regardless of this setting, the request can always be manually initiated.

LSP Client → Format on typing

[document/onTypeFormatting] Format parts of document when typing certain trigger characters. For example, this might apply indentation upon newline, or as otherwise determined by LSP Server. Note that editor indentation scripts might be trying to do the same (depending on the mode) and so it may not be advisable to have both enabled at the same time.

LSP Client → **Incremental document synchronization**

Send partial document edits to update the server rather than whole document text (if supported).

LSP Client → Highlight goto location

Provide a transient visual cue after performing a goto to a location (of definition, declaration, etc).

LSP Client → Show diagnostics notifications

[textDocument/publishDiagnostics] Process and show diagnostics notifications sent by server.

LSP Client → Show diagnostics highlights

Add text highlights for ranges indicated in diagnostics.

LSP Client → **Show diagnostics marks**

Add document marks for lines indicated in diagnostics.

LSP Client → Switch to diagnostic tab

Switch to the diagnostic tab in the plugin toolview.

LSP Client \rightarrow Close all non-diagnostics tabs

Close all non-diagnostics (e.g. references) tabs in plugin toolview.

LSP Client → **Restart LSP Server**

Restart current document's LSP Server.

LSP Client → Restart all LSP Servers

Stop all LSP Servers which will then be (re)started as needed.

4.15.2 Goto Symbol support

LSP Client can help you jump to any symbol in your project or current file. To jump to any symbol in the file, use the toolview "LSP Client Symbol Outline" on the right border of kate. This toolview lists all symbols found by the server in current document.

4.15.2.1 Configuring LSP Client Symbol Outline

By default the symbols are sorted by their occurrence in the document but you can change the sort to be alphabetical. To do so, right click in the toolview and check "Sort Alphabetically".

The toolview shows the symbols in tree mode by default, however you can change it to a list using the context menu.

4.15.2.2 Global Goto symbol support

To jump to any symbol in your project, you can open the goto symbol dialog using Ctrl+Alt+p. The dialog is empty when it opens but as soon as you type something the dialog will start showing you matching symbols. The quality of matches as well as filtering capabilities depend upon the server that you use. For example, clangd supports fuzzy filtering but some other server may not.

4.15.3 Other Features

Clangd switch source header command is supported. To switch source header in a C or C++ project either use the "Switch Source Header" option from the context menu or the shortcut **F12**.

You can jump to a symbol quickly by putting your mouse over the symbol and then pressing **Ctrl** + left mouse button.

4.15.4 Configuration

The plugin's configuration page mostly allows for persistent configuration of some of the above menu items. However, there is one additional entry to specify the Server Configuration file. This is a JSON file that can be used to specify the LSP server to start (and then to communicate with over stdin/stdout). For convenience, some default configuration is included, which can be inspected in the plugin's configuration page. To aid in the explanation below, an excerpt of that configuration is given here:

```
"servers": {
    "bibtex": {
       "use": "latex",
        "highlightingModeRegex": "^BibTeX$"
    "c": {
        "command": ["clangd", "-log=error", "--background-index"],
        "commandDebug": ["clangd", "-log=verbose", "--background-index \leftrightarrow
        "url": "https://clang.llvm.org/extra/clangd/",
        "highlightingModeRegex": "^(C|ANSI C89|Objective-C)$"
    },
    "cpp": {
        "use": "c",
        "highlightingModeRegex": "^(C)++|ISO|C|++|Objective-C|
           \\+\\+) $"
    "d": {
        "command": ["dls", "--stdio"],
        "url": "https://github.com/d-language-server/dls",
        "highlightingModeRegex": "^D$"
```

```
"fortran": {
        "command": ["fortls"],
        "rootIndicationFileNames": [".fortls"],
        "url": "https://github.com/hansec/fortran-language-server",
        "highlightingModeRegex": "^Fortran.*$"
    "javascript": {
        "command": ["typescript-language-server", "--stdio"],
        "rootIndicationFileNames": ["package.json", "package-lock.json ←
        "url": "https://github.com/theia-ide/typescript-language-server \leftrightarrow
        "highlightingModeRegex": "^JavaScript.*$",
        "documentLanguageId": false
    },
    "latex": {
        "command": ["texlab"],
        "url": "https://texlab.netlify.com/",
        "highlightingModeRegex": "^LaTeX$"
    },
    "ao": {
        "command": ["go-langserver"],
        "commandDebug": ["go-langserver", "-trace"],
        "url": "https://github.com/sourcegraph/go-langserver",
        "highlightingModeRegex": "^Go$"
    "python": {
        "command": ["python3", "-m", "pyls", "--check-parent-process"],
        "url": "https://github.com/palantir/python-language-server",
        "highlightingModeRegex": "^Python$"
    },
    "rust": {
        "command": ["rls"],
        "path": ["%{ENV:HOME}/.cargo/bin", "%{ENV:USERPROFILE}/.cargo/ ←
           bin"],
        "rootIndicationFileNames": ["Cargo.lock", "Cargo.toml"],
        "url": "https://github.com/rust-lang/rls",
        "highlightingModeRegex": "^Rust$"
    },
    "ocaml": {
        "command": ["ocamlmerlin-lsp"],
        "url": "https://github.com/ocaml/merlin",
        "highlightingModeRegex": "^Objective Caml.*$"
    }
}
```

Note that each "command" may be an array or a string (in which case it is split into an array). Also, a top-level "global" entry (next to "server") is considered as well (see further below). The specified binary is searched for in the usual way, e.g. using PATH. If it is installed in some custom location, then the latter may have to be extended. Or alternatively, a (sym)link or wrapper script may be used in a location that is within the usual PATH. As illustrated above, one may also specify a "path" that will be searched for after the standard locations.

All of the entries in "command", "root" and "path" are subject to variable expansion.

The "highlightingModeRegex" is used to map the highlighting mode as used by Kate to the language id of the server. If no regular expression is given, the language id itself is used. If a "documentLanguageId" entry is set to false, then no language id is provided to the server when

opening the document. This may have better results for some servers that are more precise in determining the document type than doing so based on a kate mode.

From the above example, the gist is presumably clear. In addition, each server entry object may also have an "initializationOptions" entry, which is passed along to the server as part of the 'initialize' method. If present, a "settings" entry is passed to the server by means of the 'workspace/didChangeConfiguration' notification.

Various stages of override/merge are applied;

- user configuration (loaded from file) overrides (internal) default configuration
- "lspclient" entry in .kateproject project configuration overrides the above
- the resulting "global" entry is used to supplement (not override) any server entry

One server instance is used per (root, servertype) combination. If "root" is specified as an absolute path, then it used as-is, otherwise it is relative to the 'projectBase' (as determined by the Project plugin) if applicable, or otherwise relative to the document's directory. If not specified and "rootIndicationFileNames" is an array as filenames, then a parent directory of current document containing such a file is selected. Alternatively, if "root" is not specified and "rootIndicationFilePatterns" is an array of file patterns, then a parent directory of the current document matching the file pattern is selected. As a last fallback, the home directory is selected as "root". For any document, the resulting "root" then determines whether or not a separate instance is needed. If so, the "root" is passed as rootUri/rootPath.

In general, it is recommended to leave root unspecified, as it is not that important for a server (your mileage may vary though). Fewer server instances are obviously more efficient, and they also have a 'wider' view than the view of many separate instances.

As mentioned above, several entries are subject to variable expansion. A suitable application of that combined with "wrapper script" approaches allows for customization to a great many circumstances. For example, consider a python development scenario that consists of multiple projects (e.g. git repos), each with its own virtualenv setup. Using the default configuration, the python language server will not be aware of the virtual env. However, that can be remedied with the following approach. First, the following fragment can be entered in LSPClient plugin's "User Server Settings":

The root entry above is relative to the project directory and ensures that a separate language server is started for each project, which is necessary in this case as each has a distinct virtual environment.

pylsp_in_env is a small "wrapper script" that should be placed in PATH with the following (to-be-adjusted) content:

```
#!/bin/bash
cd $1
# run the server (python-lsp-server) within the virtualenv
# (i.e. with virtualenv variables setup)
# so source the virtualenv
```

```
source XYZ
# server mileage or arguments may vary
exec myserver
```

4.15.4.1 LSP Server Configuration

Each particular LSP server has its own way of customization and may use language/tool specific means for configuration, e.g. tox.ini (a.o. for python), .clang-format for C++ style format. Such configuration may then also be used by other (non-LSP) tools (such as then tox or clangformat). On top of that, some LSP servers also load configuration from custom files (e.g. .ccls). Furthermore, custom server configuration can also be passed through LSP (protocol), see the aforementioned "initializationOptions" and "settings" entries in server configuration.

Since various level of override/merge are applied, the following example of user specified client configuration tweaks some python-language-server configuration.

Unfortunately, LSP server configuration/customization is often not so well documented, in ways that only examining the source code shows configuration approaches and the set of available configuration options. In particular, the above example's server supports many more options in "settings". See another LSP client's documentation for various other language server examples and corresponding settings, which can easily and readily be transformed to the JSON configuration that is used here and outlined above.

4.15.4.2 LSP Server Diagnostic Suppression

It may happen that diagnostics are reported which are not quite useful. This can be quite cumbersome, especially if there are many (often of the same kind). In some cases, this may be tweaked by language (server) specific means. For example, the clangd configuration mechanism allows tweaking of some diagnostics aspects. In general, however, it may not always be evident how to do so, or it may not even be possible at all in desired ways due to server limitations or bug.

As such, the plugin supports diagnostics suppression similar to e.g. valgrind suppressions. The most fine-grained configuration can be supplied in a "suppressions" key in the (merged) JSON configuration.

```
}
}
}
```

Each (valid) rule has an arbitrary name and is defined by an array of length 2 or 3 which provides a regex to match against the (full) filename, a regex to match against the diagnostic (text) and an optional regex matched against the (source code range of) text to which the diagnostic applies.

In addition to the above fine-grained configuration, the context menu in the diagnostics tab also supports add/remove of suppressions that match a particular diagnostic (text) exactly, either globally (any file) or locally (the specific file in question). These suppression are stored in and loaded from session config.

4.15.4.3 LSP Server Troubleshooting

It is one thing to describe how to configure a (custom) LSP server for any particular language, it is another to end up with the server running smoothly. Usually, the latter is fortunately the case. Sometimes, however, problems may arise due to either some "silly" misconfiguration or a more fundamental problem with the server itself. The latter might typically manifest itself as a couple of attempts at starting the server, as so reported in Kate Output tab. The latter, however, is only meant to convey high-level messages or progress rather than to provide detailed diagnostics, and even less so for what is in fact another process (the LSP server).

The usual way to diagnose this is to add some flag(s) to the startup command (of the language server) that enables (additional) logging (to some file or standard error), in as far as it does not do so by default. If Kate is then started on the command line, then one might be able to obtain more (in)sight in what might be going wrong.

It may also be informative to examine the protocol exchange between Kate's LSP client and the LSP server. Again, the latter usually has ways to trace that. The LSP client also provides additional debug tracing (to stderr) when Kate is invoked with the following QT_LOGGING_RULES=kat elspclientplugin=true suitably export'ed.

4.16 Search & Replace

4.16.1 Introduction

Kate's Search & Replace plugin allows you to search for text or regular expressions in many different files at once. You can search all open files, all the files in one directory and optionally its subdirectories, or in the active file. You can even filter by filename, for instance searching only files that end with a particular file extension.

4.16.2 Interface

4.16.2.1 Search Query

The following options are always displayed at the top of the Search in Files tool view:



You can have as many searches as you want open at the same time. Simply click the new tab button at the top-left corner of the Search tool view and a new results tab will open permitting you to perform another search.



The button in the top right-corner of the Search in Files tool view will toggle the bottom half of the tool view between displaying additional options for the Search in Folder mode and the results of your search.

Find

This is where you type in what you want to find. You may enter standard text, or a regular expression if enabled.

Replace (text box)

Replacement text that will be added to file(s) in place of the text in the **Find** text box.

Search

When you've finished configuring everything, just press the **Search** button to perform your search. You may also press **Enter** in the **Find** text box to do the same.

Replace

When you've finished configuring everything, just press the **Replace** button to replace the text entered in the **Find** text box with that of the **Replace** text box. You may also press **Enter** in the **Replace** text box to do the same.

Next

Go to the next match of your search query, switching files if necessary.

Replace Checked

The same as **Replace**, but will only perform replacements in files that are checked in the pane below.

4.16.2.2 Search in Folder Options

These options are displayed below the aforementioned query options. If search results are being displayed instead, press the button to display them.

Search in

This has three options. Select **Open Files** to search all files currently open in Kate. Select **Folder** to search inside a folder and optionally its subfolders. Select **Current File** to search only in the active file.

If the **Projects** plugin is loaded, you can also search in the **Current Project** or in **All Open Projects**.

Match case

Restricts search results to only those that have the exact same combination of upper and lower case letters as your search query.

Regular expressions

Permits you to use regular expressions instead of simple text as your search query.

Expand results

Display all the results found in each file, instead of just a list of files that contain the search query.

Folder

You may enter the path of the folder you wish to search. For instance, you might enter <code>~/development/kde/kate/</code> if you wished to search the Kate source code. This option is only available when using **in Folder** mode.

Open file dialog

Press this button to locate the folder in your desktop's folder browser. This button only works when using **Folder** mode.



Press this button to change **Folder** to the parent of the currently selected folder. This button only works when using **Folder** mode.



This button will set the **Folder** entry to the folder in which the currently open document is located. This button only works when using **Folder** mode.

Filter

This permits you to only search filenames that match a particular pattern. For instance, to only search files written in C++, change it to ***.cpp**. To search only files beginning with kate, change it to **kate***. You can enter multiple filters separated with a comma (,). This option is not available when using **Open files** mode.

Exclude

The opposite of **Filter**, this prevents Kate from searching files that match the specified patterns. As with **Filter**, you can enter multiple patterns separated with a comma (,). This option is not available when using **Open files** mode.

Recursive

If this option is enabled, Kate will also search in all subfolders of the selected folder. This option is only available when using **Folder** mode.

Include hidden

If this option is enabled, Kate will also search in files or folders that are typically hidden by your operating system. This option is only available when using **Folder** mode.

Follow symbolic links

The Search in Files plugin typically does not follow symbolic links. When this option is enabled, the plugin will follow them instead and search inside the files or folders they reference. This option is only available when using **Folder** mode.

WARNING

It's possible for symbolic links to reference a folder that is the parent of the folder currently being searched, or other folders that contain symbolic links to their parent. If there is such a link in the folder being searched and this option is enabled, Kate will repeatedly follow the link and search the folder, and the search will never complete.

Include binary files

If enabled, Kate will also search in files that do not appear to be text files.

4.16.2.3 Search Results

The results of your search are displayed below the query options. If options for Search in Folder

mode are displayed, simply press the button to display them. They will also automatically be displayed as soon as a search is performed.

The search results display a list of files that contains text that matches your search query, followed by the number of matches found in that file.

To see a list of matches in that file, simply click the expansion arrow to the left of the file name. (If you selected the **Expand results** option, this will already be done for you.) The line number each match is found on will be displayed, followed by the contents of that line, with your search query indicated in bold text.

To open the file your result was found in, simply double-click it. Kate will open the file if needed. You can also move the cursor to the location of a particular match by double-clicking on its listing instead of the file name.

4.16.3 Menu Structure

Edit → Search in Files (Ctrl+Alt+F)

Launches the Search and Replace tool view.

Edit → Go to Next Match

Go to the next match in a search performed by the Search and Replace plugin.

Edit → **Go to Previous Match**

Go to the previous match in a search performed by the Search and Replace plugin.

$\textbf{View} \rightarrow \textbf{Tool Views} \rightarrow \textbf{Show Search and Replace}$

Toggle the display of Kate's **Search and Replace** tool.

4.17 Kate Snippets

4.17.1 Introduction

Kate Snippets is a plugin used to save you some time by adding support for so-called 'snippets' (re-usable source code, machine code or text). The plugin also supports code completion and JavaScript.

4.17.2 Menu Structure

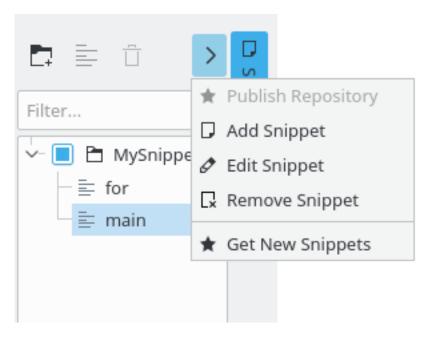
View \rightarrow **Tool Views** \rightarrow **Show Snippets**

Shows snippets panel containing all snippets in your repository that are for the currently opened file type.

Tools \rightarrow **Create Snippet**

Create a new snippet, which is a reusable chunk of text you may insert in any part of any document.

4.17.3 Snippets panel



The panel for Kate Snippets.

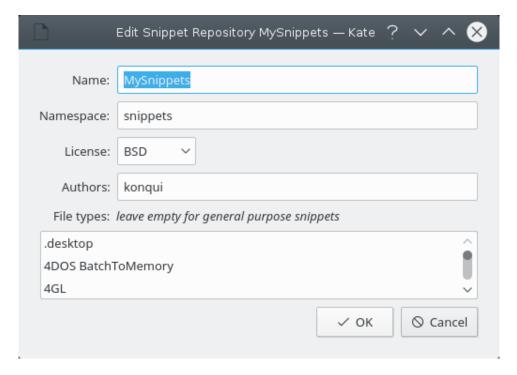
In the panel you should see a list of snippet repositories, along with options to create your own, get them from the Internet or load them from a local file. Each repository has a checkbox that can be used to activate or deactivate it. There are also buttons to edit and delete existing repositories.

4.17.3.1 Loading Snippet Repository Files

You can download snippet repositories from the Internet. Just click **Get New Snippets** and a window with a list of snippet repositories will open. After downloading the desired snippet, make sure that you have activated it.

4.17.3.2 Creating and Editing Repositories

To create a new snippet repository, click **Add Repository**. You should now see a dialog that asks for the name of the snippet file, license and author. After choosing the desired options, click **OK**.



The repository editor interface.

The snippet repository editor contains the following options:

Name

Appears in the list of snippets in the tool view and is also searched when using the code completion feature.

Namespace

Prefix used while using code completion.

License

Select the license for you snippet repository.

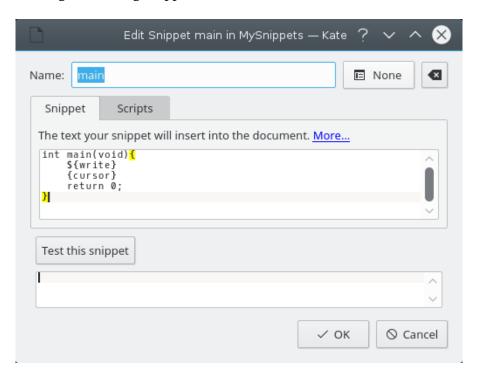
Authors

Enter the name(s) of the author(s) of the snippet file.

File types

Select the file type(s) you want the snippet repository to apply to. It is set to "by default, so the repository applies to all files. You can change it to something like C++ for instance, or select from a list by clicking on the items. You can specify more than one file type pressing the Shift while adding types.

4.17.3.3 Creating and Editing Snippets



The snippet editor interface.

Name

The name will be shown in the completion list.

Shortcut

Pressing this shortcut will insert the snippet into the document.

Snippets

The text your snippet will insert into the document.

A snippet can contain editable fields. They can be cycled by pressing **Tab**. The following expressions can be used in the template text to create fields:

\${field_name} creates a simple, editable field. All subsequent occurrences of the same field_name create fields which mirror the contents of the first during editing.

\${field_name=default} can be used to specify a default value for the field. <code>default</code> can be any JavaScript expression.

Use \${field_name=text} to specify a fixed string as default value.

\${func(other_field1, other_field2, ...)} can be used to create a field which evaluates a JavaScript function on each edit and contains its contents. See the **Scripts** tab for more information.

\${cursor} can be used to mark the end position of the cursor after everything else was filled in.

Scripts

JavaScript helper functions to use in your snippets.

All JavaScript functions should return the contents you want to place in a template field as a string.

Functions are called in a scope which contains the contents of all editable template fields as local variables. For example in a snippet containing \${field}, a variable called field will be present which contains the up-to-date contents of the template field. Those variables can either be used in the function statically or passed as arguments, by using the \${func(field)} or \${field2=func(field)} syntax in the snippet string.

You can use the Kate scripting API to get the selected text, full text, file name and more by using the appropriate methods of the **document** and **view** objects. Refer to the scripting API documentation for more information.

For more complex scripts it may be important to understand that *first*, the raw snippet is inserted into the document, and *then* functions are being evaluated. E.g., if a function retrieves the text on the line where the snippet is being inserted, that text will also contain **\${functionCall()}**.

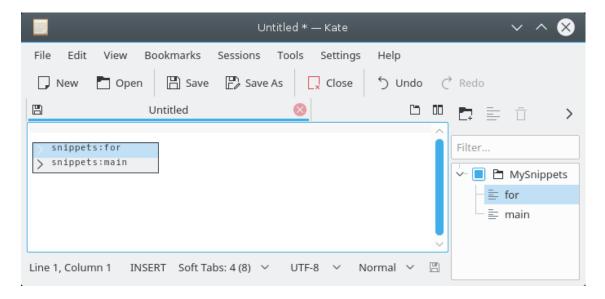
As an example of working with selections using the scripting API, a simple way to wrap selected text inside tags is this snippet: \${view.selectedText()}

The following example invokes a script that inserts a default text in case there is no selection. Snippet:

\${rangeCommand("%%1", "Bold")}
Script:

```
function rangeCommand(command, def) {
   if (view.selectedText().length > 0) {
      return command.replace("%%1", view.selectedText());
   } else {
      return command.replace("%%1", def);
   }
}
```

4.17.4 Using Snippets



Selecting from a list of snippets.

You can call snippets in two ways:

• By choosing the snippet from the tool view.

• While writing, you can press **Ctrl+Space**, which will display all the snippets in a convenient window from which you can choose. This key combination provides functionality similar to code completion.

If the snippet contains variables (besides \${cursor}) the cursor will automatically go to the first occurrence of a variable and will wait for you to write something. When you are done, you can press **Tab** to move to the next variable, and so on.

4.17.5 Thanks and Acknowledgments

Kate Snippets was written by Joseph Wenninger.

Special thanks to Google Code-In 2011 participant Martin Gergov for writing much of this section.

4.18 Keyboard Macros Plugin

4.18.1 Introduction

Record and play keyboard macros (i.e., keyboard action sequences).

4.18.2 Basic usage

4.18.2.1 To start recording a keyboard macro:

Tools \rightarrow Keyboard Macros \rightarrow Record Macro... (Ctrl+Shift+K).

The plugin will record every key presses until you end recording.

4.18.2.2 To end recording:

 $\textbf{Tools} \rightarrow \textbf{Keyboard Macros} \rightarrow \textbf{End Macro Recording (Ctrl+Shift+K)}.$

The plugin will stop recording key presses and save the sequence as the current macro.

4.18.2.3 To cancel recording:

Tools \rightarrow Keyboard Macros \rightarrow Cancel Macro Recording (Ctrl+Alt+Shift+K).

The plugin will stop recording key presses but the current macro won't change.

4.18.2.4 To play the current macro:

Tools → Keyboard Macros → Play Macro (Ctrl+Alt+K).

The plugin will play the current macro.

The **kmplay** command without any arguments will also play the current macro.

4.18.3 Named macros

It is possible to save keyboard macros by giving them a name.

Named macros are persistent between Kate's sessions, they're saved in the keyboardmacros.json file in Kate's user data directory (usually $_{\sim}/.local/share/kate/$).

4.18.3.1 To save the current macro:

Tools → Keyboard Macros → Save Current Macro (Alt+Shift+K).

The plugin will prompt you for a name and save the macro under it.

The **kmsave** name command will save the current macro under the name name.

4.18.3.2 To load a saved macro as the current one:

$\textbf{Tools} \rightarrow \textbf{Keyboard Macros} \rightarrow \textbf{Load Named Macro...}.$

The plugin lists saved macros as items in this submenu, activating an item will load the corresponding macro as the current one.

The **kmload** name command will load the macro saved under the name name as the current one.

4.18.3.3 To play a saved macro without loading it:

Tools \rightarrow Keyboard Macros \rightarrow Play Named Macro....

The plugin lists saved macros as items in this submenu, activating an item will play the corresponding macro without loading it.

Note that each saved macros is an action that is part of the current action collection so that a custom shortcut can be assigned to it through the **Settings** \rightarrow **Configure Keyboard Shortcuts...** interface.

The **kmplay** name command will play the macro saved under the name name without loading it.

4.18.3.4 To wipe (i.e., delete) a saved macro:

Tools \rightarrow Keyboard Macros \rightarrow Wipe Named Macro....

The plugin lists saved macros as items in this submenu, activating an item will wipe (i.e., delete) the corresponding macro.

The **kmwipe** name command will wipe the macro saved under the name name.

4.18.3.5 Tips for commands:

Note that after the **km** prefix, all these commands use a different letter so you can efficiently call them using tab-completion!

4.18.4 Limitations

As of now, keyboard macros fail to play properly if some types of GUI widgets are used: QMenu, QuickOpenLineEdit, or TabSwitcherTreeView, for example. I'm not sure why but my first guess would be that these widgets work in a non-standard way regarding keyboard events.

4.19 SQL Plugin

4.19.1 Introduction

The Structured Query Language (SQL) is a specialized language for updating, deleting, and requesting information from databases.

The Kate SQL Plugin allows you to:

- Create a database
- Connect to existing databases
- Insert and delete data in the database
- Execute queries
- Display results in a table

4.19.2 Connecting to a Database

Select **Add Connection** from the **SQL** menu or toolbar, and then select the Qt[™] database driver you want to use (including QSQLITE, QMYSQL3, QMYSQL, QODBC3, QODBC, QPSQL7, and QPSQL). If you can't see the desired driver, you need to install it. Then, press **Next**.

If the database you selected uses a file, simply indicate the database's location and press the **Next** button. If it requires connecting to a server, you must enter the hostname of the server, your username and password, and any other information that particular driver may require. Then press **Next**.

Finally, give a name to your connection, and press **Finish**.

4.19.3 Running Queries

4.19.3.1 INSERT/DELETE/UPDATE

You can insert, delete, and update data using the SQL plugin just as you would from the command line or from within a program. Simply enter a query and press the **Run query** button in the toolbar or use $SQL \rightarrow Run \ query \ (Ctrl+E)$.

Example 4.1 Some Example Queries

INSERT

```
INSERT INTO table_name ("feature1", "feature2", "feature3", "feature4", ↔

"feature5")

VALUES ("value1", "value2", "value3", "value4", "value5")
```

DELETE

```
DELETE FROM table_name WHERE name = "text"
```

UPDATE

```
UPDATE table_name SET "feature1" = "text", "feature2" = "text", " ↔ feature3" = "text", "feature4" = "text", "feature5" = "text"
```

4.19.3.2 SELECT

After running a **SELECT** query, you can view the results as a table that will appear in the **SQL Data Output** tool view at the bottom of Kate, or as text in the **SQL Text Output**. If there is an error, you can see it in the text output.

Example 4.2 Example SELECT Query

```
SELECT * FROM table_name
```

In the **SQL Data Output** tool view, there are several buttons:

Resize columns to contents

Changes the size of columns to fit their contents.

Resize rows to contents

Changes the size of rows to fit their contents.

Copy

Selects all of the table contents and copies it to the clipboard buffer.

Export

Exports all of the table contents to a file, the clipboard, or the current document in the Comma Separated Values format.

Clear

Removes everything from the table view.

You can now change the colors displayed in the table in the SQL section of $Settings \rightarrow Configure$ Kate....

4.19.4 Browsing

You can browse your database using the **Database schema** browser tool view on the left. The information displayed varies depending on which database driver you are using.

To refresh this list, right-click anywhere in the tool view and select **Refresh**. To generate a query on any entry in the list, right-click on an entry, select **Generate**, and select the query type (**SELECT**, **UPDATE**, **INSERT**, or **DELETE**) from the submenu that appears.

4.19.5 Menu Structure

$SOL \rightarrow Add$ connection...

Adds a new connection using any database driver.

$SQL \rightarrow Remove connection$

Removes the selected connection.

$SQL \rightarrow Edit connection...$

Edits the current connection's settings.

Connections

All database connections you have created are listed between the **Edit connection** and **Run query** menu items. Select one to run queries or make modifications to it.

SQL → Run query (Ctrl+E)

Runs your query.

4.19.6 Thanks and Acknowledgments

The SQL Plugin was written by Marco Mentasti.

Special thanks to Google Code-In 2011 participant Ömer Faruk ORUÇ for writing much of this section.

4.20 Symbol Viewer Plugin

4.20.1 Using the Close Except/Like Plugin

It allows developers to view symbols (functions, macros and structures) from source code.

By clicking the parsed information you can easily browse the code.

At the moment the following languages are supported:

C/C++, Java[™], Perl, PHP, Python, Ruby, XSLT, Tcl/Tk, Fortran

Feature list:

List/Tree mode

Enable/disable sorting

Hide/Show Functions Parameters

Expand/collapse tree mode

Auto-update on document change

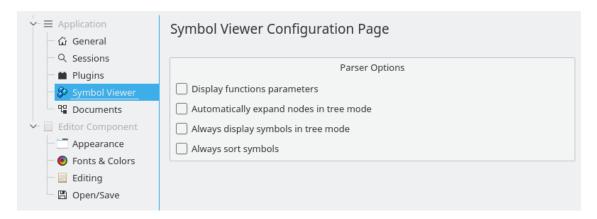
Code parsing is based on the Syntax-Highlighting framework from KDE Frameworks

4.20.2 Menu Structure

$View \rightarrow Tool \ Views \rightarrow Show \ Symbol \ List \ (Ctrl+\)$

Toggle the display of Kate's Symbol List displaying Functions, Macros and Structures of the source code in the active document.

4.20.3 Configuration



Choose the default parser options

4.21 Terminal Tool View Plugin

The built in Terminal Emulator is a copy of the KDE Konsole terminal application, for your convenience. It is available from the $View \rightarrow Tool\ Views \rightarrow Show\ Terminal\ Panel\ menu\ item\ and\ will get the focus whenever displayed. Additionally, if the Automatically synchronize the terminal with the current document when possible option is enabled, it will change to the directory of the current document if possible when it is displayed, or when the current document changes.$

The default location in the Kate window is at the bottom, below the editing area.

You can configure the Konsole using its right mouse button menu, for more information, see the Konsole manual.

The built-in terminal emulator is provided by the Terminal Tool View plugin.

4.21.1 Menu Structure

$View \rightarrow Tool \ Views \rightarrow Show \ Terminal \ Panel$

Toggles the display of the built-in terminal emulator.

When activated for the first time, the terminal will be created.

When the terminal emulator is displayed, it will get the focus, so that you can start typing in commands immediately. If the Automatically synchronize the terminal with the current document when possible option is enabled in the **Terminal** page of the Main configuration dialog the shell session will change to the directory of the active document, if it is a local file.

$\textbf{Tools} \rightarrow \textbf{Pipe to Terminal}$

Feed the currently selected text into the built-in terminal emulator. No newline is added after the text.

Tools → **Synchronize Terminal with Current Document**

This will cause the built-in Terminal to **cd** into the directory of the active document.

Alternatively, you can configure Kate to always keep the terminal in sync with the current document. See Section 4.21.2 for more information.

Tools → **Focus/Defocus Terminal Panel**

Switch the focus from the current document to the terminal and vice versa.

4.21.2 Configuration

You can configure the Terminal Tool View plugin on the **Terminal** page of the configuration dialog.

The following options are available:

Automatically synchronize the terminal with the current document when possible

This will cause the built-in terminal to **cd** into the directory of the active document when launched and when a new document gets the focus. If not enabled, you have to do all your navigation in the terminal on your own.

Set EDITOR environment variable to 'kate -b'

This sets the EDITOR environment variable so programs run in the built-in terminal that automatically open a file in an editor will open them in Kate instead of the default editor configured in your shell. You will not be able to continue using the terminal until you have closed the file in Kate, so the calling program is aware you have finished editing the file.

Hide Konsole on pressing 'Esc'

This allows closing the built-in terminal by pressing the **Esc** key. May cause issues with terminal applications that use **Esc** key, e.g. vim. Add such applications in the text input box below. The items in the list should be separated with comma.

4.22 Text Filter Plugin

4.22.1 Using the Text Filter Plugin

You can use this plugin to process selected text using terminal commands. The selection will be used as input for the command, and the output will either replace the selection or be copied to the clipboard, depending on the user's preference.

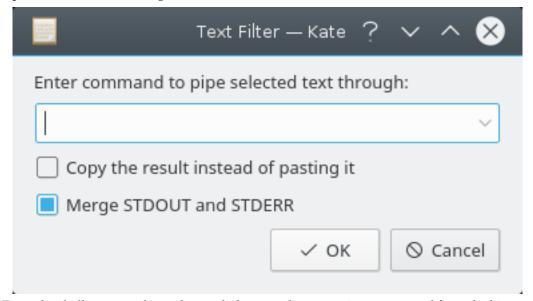
EXAMPLES:

- less /etc/fstab paste the contents of this file or copy it to the clipboard
- wc count lines, words and characters of the selection and paste this into the document or copy it to the clipboard
- sort sort lines of the selection and paste the result into the document or copy it to the clipboard

4.22.2 Menu Structure

Tools \rightarrow Filter Text (Ctrl+\)

Opens the Text Filter dialog:



Enter the shell command into the combobox or select a previous command from the history.

Copy the result instead of pasting it

Copy the result to clipboard leaving a document unchanged.

Merge STDOUT and STDERR

If checked, an output from STDOUT and STDERR will be merged and no errors will be reported. Otherwise, STDERR will be displayed as a passive message.

4.23 XML Validation

This plugin checks XML files for validity and being well-formed.

This plugin checks the current file. A list of warnings and errors will appear at the bottom of Kate's main window. You can click on an error message to jump to the corresponding place in the file. If the file has a 'DOCTYPE' the DTD given with this doctype will be used to check the file for validity. The DTD is expected at a position relative to the current file, e.g. if the doctype refers to 'DTD/xhtml1-transitional.dtd' and the file is /home/peter/test.xml the DTD is expected to be located at /home/peter/DTD/xhtml1-transitional.dtd. However, remote DTDs specified via http are supported.

If the file has no doctype it will be checked for being well-formed.

To learn more about XML check out the official W3C XML pages.

Internally this plugin calls the external command **xmllint**, which is part of libxml2. If this command is not correctly installed on your system, the plugin will not work.

To load this plugin open Kate's configuration dialog under **Settings** \rightarrow **Configure Kate...**. Then select **XML Validation** which will appear in the **Application** / **Plugins** section and close the dialog.

4.23.1 Menu Structure

XML → **Validate XML**

This will start the check, as described above.

4.23.2 Thanks and Acknowledgments

Kate Plugin 'XML Validation' copyright 2002 Daniel Naber daniel.naber@t-online.de. Documentation copyright 2002 Daniel Naber

4.24 XML Completion

This plugin gives hints about what is allowed at a certain position in an XML file, according to the file's DTD. It will list possible elements, attributes, attribute values or entities, depending on the cursor position (e.g. all entities are listed if the character on the left of the cursor is '&'). It's also possible to close the nearest open tag on the left.

The DTD must exist in XML format, as produced by the Perl program **dtdparse**. We will call a DTD in this format 'meta DTD'. Some meta DTDs are supplied. They are installed in katex mltools/ in **qtpaths --paths GenericDataLocation**, which is also the default folder when you choose **Assign Meta DTD...**. To produce your own meta DTDs, get **dtdparse** from http://dtdparse.sourceforge.net.

4.24.1 How to Use

Start Kate and open the configuration dialog under **Settings** \rightarrow **Configure Kate...** Then select **XML Completion** which will appear in the **Application** \rightarrow **Plugins** page and close the dialog. After that, select **XML** \rightarrow **Assign Meta DTD...**. If your document contains no 'DOCTYPE' or the doctype is unknown, you will have to select a meta DTD from the file system. Otherwise the meta DTD that matches the current document's DOCTYPE will be loaded automatically.

You can now use the plugin while typing your text:

< (less than key)

This will trigger a list of possible elements unless the cursor is inside a tag already. Note that you currently cannot use this to insert the top level element (e.g. '<html>').

</(less than key + slash)

Entering these characters will offer to close the current element (nearest open one to the left of the cursor). Press **Enter** to accept the suggestion. Unlike the **Close Element** menu item, this works only with a DTD assigned.

" (quote key)

The quote key will trigger a list of possible attribute values (if there are any) if you are inside a tag.

(space key)

This key will trigger a list of possible attributes for the current element if you are inside a tag.

& (ampersand key)

This key will trigger a list of named entities.

4.24.2 Features and Limitations

You can test all functions and limitations by loading katexmltools/testcases.xml in qtpaths —paths GenericDataLocation into Kate and following the instructions.

4.24.3 Menu Structure

XML → **Insert Element...** (Ctrl+Enter)

This will open a dialog that lets you insert an XML element. The <, > characters and the closing tag will be inserted automatically. If you have selected text when this menu item is selected, the selected text will be surrounded by the opening and the closing tag. The dialog also offers completion of all elements that may be inserted at the current cursor position if you have assigned a meta DTD by using **Assign Meta DTD...**.

$XML \rightarrow Close Element (Ctrl+<)$

This will search your text for a tag that is not yet closed and will close it by inserting the corresponding closing tag. The search starts at the cursor position and goes left. If it cannot find an open tag nothing will happen.

$XML \rightarrow Assign Meta DTD...$

This will tell the plugin which meta DTD to use for the current document. Note that this assignment will not be saved. You will have to repeat it when you start Kate the next time.

4.24.4 Thanks and Acknowledgments

Kate Plugin 'XML Completion' copyright 2001,2002 Daniel Naber daniel.naber@t-online.de.

KDE SC 4 version copyright 2010 Tomáš Trnka

Documentation copyright 2001,2002 Daniel Naber

Chapter 5

Advanced Editing Tools

For information about the advanced editing tools included with Kate, see the Advanced Editing Tools chapter of the KatePart Handbook.

Chapter 6

Extending Kate

T.C. Hollingsworth

6.1 Introduction

Like any advanced text editor, Kate offers a variety of ways to extend its functionality. You can write simple scripts to add functionality with JavaScript or add even more functionality to the editor itself with Kate Application Plugins written in C++. Finally, once you have extended Kate, you are welcome to join us and share your enhancements with the world!

6.2 Working with Syntax Highlighting

For information about adding or modifying syntax highlighting definitions, see the Working with Syntax Highlighting section of the Development chapter of the KatePart Handbook.

6.3 Scripting with JavaScript

For information about scripting with JavaScript, see the Scripting with JavaScript section of the Development chapter of the KatePart Handbook.

6.4 Kate (C++) Application Plugins

Kate Application Plugins extend the functionality of the Kate editor itself in any way you can imagine, using the same programming language Kate is written in, C++.

To get started, see the Writing a Kate Plugin tutorial on the Kate website.

Chapter 7

The VI Input Mode

For information about Kate's VI input mode, see the VI Input Mode chapter of the KatePart Handbook.

Chapter 8

The Menu Entries

8.1 The File Menu

File \rightarrow New (Ctrl+N)

This command starts a new document in the editing window. In the **Documents** list on the left the new file is named *Untitled*.

File \rightarrow Open... (Ctrl+O)

Displays a standard KDE **Open File** dialog. Use the file view to select the file you want to open, and click on **Open** to open it.

File → Open Recent

This is a shortcut to open recently saved documents. Clicking on this item opens a list to the side of the menu with several of the most recently saved files. Clicking on a specific file will open it in this application - if the file still resides at the same location.

File → Open With

This submenu presents a list of applications known to handle the MIME type of your current document. Activating an entry will open the current document with that application.

In addition, an entry **Other...** launches the open with dialog box that allows you to select another application to open the active file. Your file will still be open in Kate.

File \rightarrow Save (Ctrl+S)

This saves the current document. If there has already been a save of the document then this will overwrite the previously saved file without asking for the user's consent. If it is the first save of a new document the save as dialog (described below) will be invoked.

File → Save As... (Ctrl+Shift+S)

This allows a document to be saved with a new file name. This is done by means of the file dialog box described above in the Open section of this help file.

File → Save As with Encoding

Save a document with a new file name in a different encoding.

File → Save Copy As

Save a copy of the document with a new file name and continue editing the original document.

File \rightarrow Save All (Ctrl+L)

This command saves all modified open files.

File \rightarrow Reload (F5)

Reloads the active file from disk. This command is useful if another program or process has changed the file while you have it open in this application.

$File \rightarrow Reload\ All$

Reloads all opened files..

File → Print... (Ctrl+P)

Opens a simple print dialog allowing the user to specify what, where, and how to print.

File \rightarrow Export as HTML

Save the currently open document as an HTML file, which will be formatted using the current syntax highlighting and color scheme settings.

File → Close (Ctrl+W)

Close the active file with this command. If you have made unsaved changes, you will be prompted to save the file before Kate closes it.

File \rightarrow Close Other

Close other open documents.

$\mathbf{File} \to \mathbf{Close} \; \mathbf{All}$

This command closes all the files you have open in Kate.

File \rightarrow Close Orphaned

Close all documents in the file list, which could not be reopened during startup, because they are not accessible anymore.

File \rightarrow Quit (Ctrl+Q)

This command closes Kate and any files you were editing. If you have made unsaved changes to any of the files you were editing, you will be prompted to save them.

8.2 The Edit Menu

Edit \rightarrow Undo (Ctrl+Z)

Undo the last editing command (typing, copying, cutting etc.)

NOTE

This may undo several editing commands of the same type, like typing in characters.

Edit \rightarrow Redo (Ctrl+Shift+Z)

This will reverse the most recent change (if any) made using Undo.

Edit \rightarrow Cut (Ctrl+X)

This command deletes the current selection and places it on the clipboard. The clipboard works invisibly and provides a way to transfer data between applications.

Edit \rightarrow Copy (Ctrl+C)

This copies the currently selected text to the clipboard so that it may be pasted elsewhere. The clipboard works invisibly and provides a way to transfer data between applications.

Edit \rightarrow Paste (Ctrl+V)

This will insert the first item in the clipboard at the cursor position. The clipboard works invisibly and provides a way to transfer data between applications.

Note

If Overwrite Selection is enabled, the pasted text will overwrite the selection, if any.

Edit → **Paste Selection (Ctrl+Shift+Ins)**

This will paste the mouse selection contents that were chosen previously. Mark some text with the mouse pointer to paste it in the currently open file using this menu item.

Edit → Swap with clipboard contents

This will swap the selected text with the clipboard contents.

Edit → **Clipboard History**

This submenu will display the beginning of portions of text recently copied to the clipboard. Select an item from this menu to paste it in the currently open file.

Edit \rightarrow Copy as HTML

Copy the selection as HTML, formatted using the current syntax highlighting and color scheme settings.

Edit \rightarrow Select All (Ctrl+A)

This will select the entire document. This could be very useful for copying the entire file to another application.

$Edit \rightarrow Deselect \ (Ctrl+Shift+A)$

Deselects the selected text in the editor if any.

Edit → Block Selection Mode (Ctrl+Shift+B)

Toggles Selection Mode. When the Selection Mode is **BLOCK**, the status bar contains the string [**BLOCK**] and you can make vertical selections, e.g. select column 5 to 10 in lines 9 to 15.

Edit → **Input Modes**

Switch between a normal and a vi-like, modal editing mode. The vi input mode supports the most used commands and motions from vim's normal and visual mode and has an optional vi mode statusbar. This status bar shows commands while they are being entered, output from commands and the current mode. The behavior of this mode can be configured in the Vi Input Mode section of the **Editing** page in this application's settings dialog.

Edit → **Overwrite Mode (Ins)**

Toggles the Insert/Overwrite modes. When the mode is **INS**, you insert characters where the cursor is. When the mode is **OVR**, writing characters will replace the current characters if your cursor is positioned before any character. The status bar shows the current state of the Overwrite Mode, either **INS** or **OVR**.

Edit \rightarrow Find... (Ctrl+F)

This opens the incremental search bar at the bottom of the editor window. On the left side of the bar is a button with an icon to close the bar, followed by a small text box for entering the search pattern.

When you start entering characters of your search pattern, the search starts immediately. If there is a match in the text this is highlighted and the background color of the entry field changes to light green. If the search pattern does not match any string in the text, this is indicated by a light red background color of the entry field.

Use the \bigcap or \bigvee button to jump to the next or previous match in the document.

Matches in the document are highlighted even when you close the search bar. To clear this highlighting, press the **Esc** key.

You can choose whether the search should be case sensitive. Selecting A^B will limit finds to entries that match the case (upper or lower) of each of the characters in the search pattern.

Click on the button at the right side of the incremental search bar to switch to the power search and replace bar.

Edit \rightarrow Find Variants \rightarrow Find Next (F3)

This repeats the last find operation, if any, without calling the incremental search bar, and searching forwards through the document starting from the cursor position.

Edit \rightarrow Find Variants \rightarrow Find Previous (Shift+F3)

This repeats the last find operation, if any, without calling the incremental search bar, and searching backwards instead of forwards through the document.

Edit \rightarrow Find Variants \rightarrow Find Selected (Ctrl+H)

Finds next occurrence of selected text.

Edit → Find Variants → Find Selected Backwards (Ctrl+Shift+H)

Finds previous occurrence of selected text.

Edit → Replace... (Ctrl+R)

This command opens the power search and replace bar. On the upper left side of the bar is a button with an icon to close the bar, followed by a small text box for entering the search pattern.

You can control the search mode by selecting **Plain text**, **Whole words**, **Escape sequences** or **Regular expression** from the drop down box.

If **Escape sequences** or **Regular expression** are selected, the **Add...** menuitem at the bottom of the context menu of the text boxes will be enabled and allows you to add escape sequences or regular expression items to the search or replace pattern from predefined lists.

Use the or button to jump to the next or previous match in the document.

Enter the text to replace with in the text box labeled **Replace** and click the **Replace** button to replace only the highlighted text or the **Replace** All button to replace the search text in the whole document.

You can modify the search and replace behavior by selecting different options at the bottom

of the bar. Selecting A^{B} will limit finds to entries that match the case (upper or lower)

of each of the characters in the search pattern. will search and replace within the current selection only. The **Find All** button highlights all matches in the document and shows the number of found matches in a small popup.

Click on the button at the right side of the power search and replace bar to switch to the incremental search bar.

Edit \rightarrow Go To \rightarrow Go to Matching Bracket (Ctrl+6)

Move the cursor to the associated opening or closing bracket.

Edit \rightarrow Go To \rightarrow Select to Matching Bracket (Ctrl+Shift+6)

Selects the text between associated opening and closing brackets.

Edit \rightarrow Go To \rightarrow Go to Previous Modified Line

Lines that were changed since opening the file are called modified lines. This action jumps the previous modified line.

Edit \rightarrow Go To \rightarrow Go to Next Modified Line

Lines that were changed since opening the file are called modified lines. This action jumps the next modified line.

Edit \rightarrow Go To \rightarrow Go to Line... (Ctrl+G)

This opens the goto line bar at the bottom of the window which is used to have the cursor jump to a particular line (specified by number) in the document. The line number may be entered directly into the text box or graphically by clicking on the up or down arrow spin controls at the side of the text box. The little up arrow will increase the line number and the down arrow decrease it. Close the bar with a click on the button with an icon on the left side of the bar.

8.3 The View Menu

View → New Window

Opens another instance of Kate. The new instance will be identical to your previous instance.

View \rightarrow Next Tab (Alt+Right)

Activates the next tab in the tabbar.

View → Previous Tab (Alt+Left)

Activates the previous tab in the tabbar.

View → Quick Open (Ctrl+Alt+O)

Show a search field and a list of opened files in the editor area. While entering text in the search field the document names and document URLs are searched for matching text. While entering text in the search field you can use the cursor keys **Up** and **Down** to navigate in the list view. Pressing the **Enter** key or double clicking on an item in the list switches the view to the document selected in the list view. This makes switching between documents easier, if there are a lot of them open.

This action is available also using the icon at the top right of the editor window.

$View \rightarrow Split \ View \rightarrow Previous \ Split \ View \ (Shift+F8)$

Focus the previous document view, if you have split the editor area in more views.

View \rightarrow Split View \rightarrow Next Split View (F8)

Focus the next document view, if you have split the editor area in more views.

$View \rightarrow Split\ View \rightarrow Left\ Split\ View$

Focus the split view intuitively on the left, using the cursor position to disambiguate if necessary.

View \rightarrow Split View \rightarrow Right Split View

Focus the split view intuitively on the right, using the cursor position to disambiguate if necessary.

$View \rightarrow Split \ View \rightarrow Upward \ Split \ View$

Focus the split view intuitively upward, using the cursor position to disambiguate if necessary.

$View \rightarrow Split View \rightarrow Downward Split View$

Focus the split view intuitively downward, using the cursor position to disambiguate if necessary.

$View \rightarrow Split \ View \rightarrow Split \ Vertical \ (Ctrl+Shift+L)$

This will split the frame (which may be the main editing area) in two equally sized frames, the new one to the left of the current one. The new frame gets the focus, and will display the same document as the old one.

See also Working with the Kate MDI.

View \rightarrow Split View \rightarrow Split Horizontal (Ctrl+Shift+T)

Splits the current frame (which may be the main editing area) in two equally sized frames, the new one below the current one. The new frame gets the focus, and displays the same document as the old one.

See also Working with the Kate MDI

View \rightarrow Split View \rightarrow Move Document to New Vertical Split

This will split the currently active view vertically into two views and move the currently active document to right view.

See also Working with the Kate MDI.

View \rightarrow **Split View** \rightarrow **Move Document to New Horizontal Split**

This will split the currently active view horizontally into two views and move the currently active document to view below.

See also Working with the Kate MDI

View \rightarrow **Split View** \rightarrow **Toggle Orientation**

Switch between horizontal and vertical split.

$View \rightarrow Split \ View \rightarrow Close \ Current \ View \ (Ctrl+Shift+R)$

Closes the active frame, which can be identified as the one displaying a blinking cursor. This is disabled, if there is only one frame (the main editing area).

No documents get closed by closing a frame – they will still be available in the **View** Menu as well as in the File List.

See also Working with the Kate MDI

$View \rightarrow Split \ View \rightarrow Close \ Inactive \ Views$

Closes all frames except the active frame (the one with a blinking cursor). This is disabled, if there is only one frame (the main editing area).

No documents get closed by closing a frame – they will still be available in the View Menu as well as in the File List.

$View \rightarrow Split\ View \rightarrow Hide\ Inactive\ Views$

This hides all split views except the currently active one.

$View \rightarrow Split \ View \rightarrow Move \ Splitter \ Left$

When Split View is enabled, this will move the border between two vertically split documents further left.

$View \rightarrow Split View \rightarrow Move Splitter Right$

When Split View is enabled, this will move the border between two vertically split documents further right.

$View \rightarrow Split View \rightarrow Move Splitter Up$

When Split View is enabled, this will move the border between two horizontally split documents further up.

View \rightarrow **Split View** \rightarrow **Move Splitter Down**

When Split View is enabled, this will move the border between two horizontally split documents further down.

Note	
Some common actions in the ViewSplit View menu are available using the right corner of the editor window	button at the top

View → Tool Views

$View \rightarrow Tool \ Views \rightarrow Show \ Sidebars \ (Ctrl+Alt+Shift+F)$

Toggles the display of the sidebar button rows. This command does not affect the display of the sidebar content widgets, any sidebar that is visible will stay visible, and if you assigned shortcuts to the commands below those will of course continue to work.

$View \rightarrow Tool\ Views \rightarrow Show\ Plugin$

A list of all enabled plugins. Use the checkbox in front of each item to toggle the display of the tool view.

View → Switch to Command Line (F7)

This command will toggle the display of the built-in command line.

View \rightarrow **Enlarge Font (Ctrl++)**

This increases the display font size.

View → Shrink Font (Ctrl+-)

This decreases the display font size.

View → Schema

This menu lists the available color schemes. You can change the schema for the current view here, to change the default schema you need to use the Fonts & Colors page of the config dialog.

View \rightarrow Word Wrap \rightarrow Dynamic Word Wrap (F10)

Toggles dynamic word wrap in the current view. Dynamic word wrap makes all the text in a view visible without the need for horizontal scrolling by rendering one actual line on more visual lines as needed.

View \rightarrow Word Wrap \rightarrow Dynamic Word Wrap Indicators

Choose when and how the dynamic word wrap indicators should be displayed. This is only available if the **Dynamic Word Wrap** option is checked.

View \rightarrow Word Wrap \rightarrow Show Static Word Wrap Marker

Toggles the display of a vertical line indicating the position of the wrap width as configured in the config dialog. This feature requires that you use a true fixed-width font.

View \rightarrow **Borders** \rightarrow **Show Icon Border (F6)**

This is a toggle item. Setting it on checked will make the Icon Border visible in the left side of the active editor, and vice versa. The Icon Border indicates the positions of the marked lines in the editor.

View \rightarrow **Borders** \rightarrow **Show Line Numbers (F11)**

This is a toggle Item. Setting it on checked will make a pane displaying the line numbers of the document visible in the left border of the active editor, and vice versa.

View \rightarrow **Borders** \rightarrow **Show Scrollbar Marks**

Toggles the visualization of bookmarks (and other marks) on the vertical scrollbar. When enabled, a mark is represented by a thin line in the mark color at the scrollbar, clicking the middle mouse button on the line will scroll the view to a position near the mark.

View → Borders → Show Scrollbar Mini-Map

This will replace the scrollbar with a visualization of the current document. For more information on the scrollbar minimap, see the Scrollbar Minimap section of the KatePart Handbook.

View \rightarrow Code Folding

These options pertain to code folding:

Show Folding Markers (F9)

Toggles the display of the folding marker pane in the left side of the view.

Fold Current Node

Collapse the region that contains the cursor.

Unfold Current Node

Expand the region that contains the cursor.

Fold Toplevel Nodes (Ctrl+Shift+-)

Collapse all toplevel regions in the document. Click on the right pointing triangle to expand all toplevel regions.

Unfold Toplevel Nodes (Ctrl+Shift++)

Expand all toplevel regions in the document.

Show Non-Printable Spaces

Show/hide bounding box around non-printable spaces.

8.4 The Bookmarks Menu

Below the entries described here, one entry for each bookmark in the active document will be available. The text will be the first few words of the marked line. Choose an item to move the cursor to the start of that line. The editor will scroll as necessary to make that line visible.

Bookmarks → Set Bookmark (Ctrl+B)

Sets or removes a bookmark in the current line of the active document. (If it's there, it is removed, otherwise one is set.)

Bookmarks → Clear All Bookmarks

This command will remove all the markers from the document as well as the list of markers which is appended at the bottom of this menu item.

Bookmarks → Previous (Alt+PgUp)

This will move the cursor to beginning of the first above line with a bookmark. The menuitem text will include the line number and the first piece of text on the line. This item is only available when there is a bookmark in a line above the cursor.

Bookmarks \rightarrow Next (Alt+PgDn)

This will move the cursor to beginning of the next line with a bookmark. The menuitem text will include the line number and the first piece of text on the line. This item is only available when there is a bookmark in a line below the cursor.

8.5 The Sessions Menu

This menu contains entries for using and managing Kate sessions. For more information, read Using Sessions.

$Sessions \rightarrow New$

Creates a new empty session. All currently open files will be closed.

$\textbf{Sessions} \rightarrow \textbf{Open Session...}$

Open an existing session. The Session Chooser dialog is displayed to let you choose one.

Sessions → Quick Open Session

This submenu lets you open an existing session.

$Sessions \rightarrow Save \ Session$

Save the current session. If the session is anonymous, you will be prompted for a session name.

Sessions \rightarrow Save Session As...

Save the current session under a new name. You are prompted for a name to use.

Sessions \rightarrow Manage Sessions...

Displays the Session Manager dialog which allows you to rename and delete sessions.

8.6 The Tools Menu

Tools \rightarrow **Read Only Mode**

Set the current document to Read Only mode. This prevents any text addition and any changes in the document formatting.

$\textbf{Tools} \rightarrow \textbf{Mode}$

Choose the filetype scheme you prefer for the active document. This overwrites the global filetype mode set in **Settings** \rightarrow **Configure Kate...** in the Filetypes tab for your current document only.

Tools \rightarrow Highlighting

Choose the Highlighting scheme you prefer for the active document. This overwrites the global highlighting mode set in **Settings** \rightarrow **Configure Editor...** for your current document only.

Tools \rightarrow **Indentation**

Choose the style of indentation you want for your active document. This overwrites the global indentation mode set in **Settings** \rightarrow **Configure Editor...** for your current document only.

Tools → **Encoding**

You can overwrite the default encoding set in **Settings** \rightarrow **Configure Editor...** in the **Open/Save** page to set a different encoding for your current document. The encoding you set here will be only valid for your current document.

Tools \rightarrow **End of Line**

Choose your preferred end of line mode for your active document. This overwrites the global end of line mode set in **Settings** \rightarrow **Configure Editor...** for your current document only.

Tools → **Add Byte Mark Order (BOM)**

Checking this action you can explicitly add a byte order mark for unicode encoded documents. The byte order mark (BOM) is a Unicode character used to signal the endianness (byte order) of a text file or stream, for more information see Byte Order Mark.

Tools → **Scripts**

This submenu contains a list of all scripted actions. The list can easily be modified by writing your own scripts. This way, Kate can be extended with user-defined tools.

There is a complete list of scripts in the KatePart documentation.

Tools → **Invoke Code Completion (Ctrl+Space)**

Manually invoke command completion, usually by using a shortcut bound to this action.

Tools \rightarrow Word Completion

Reuse Word Below (Ctrl+9) and **Reuse Word Above** (Ctrl+8) complete the currently typed text by searching for similar words backward or forward from the current cursor position. **Shell Completion** pops up a completion box with matching entries.

Tools → Spelling → Automatic Spell Checking (Ctrl+Shift+O)

When **Automatic Spell Checking** is enabled, wrongly spelled text is underlined in the document on-the-fly.

$\textbf{Tools} \rightarrow \textbf{Spelling} \rightarrow \textbf{Spelling...}$

This initiates the spellchecking program - a program designed to help the user catch and correct any spelling errors.

For more information on how to use the KDE spellchecking program, see the Check Spelling section of the KDE Fundamentals documentation.

Tools → Spelling → Spelling (from cursor)...

This initiates the spellchecking program but it starts where your cursor is instead of at the beginning of the document.

Tools \rightarrow Spelling \rightarrow Spellcheck Selection...

Spellchecks the current selection.

Tools \rightarrow Spelling \rightarrow Change Dictionary

Displays a drop down box with all available dictionaries for spellchecking at the bottom of the editor window. This allows easy switching of the spellcheck dictionary e.g. for automatic spellcheck of text in different languages.

8.7 The Settings and Help Menu

Kate has the common KDE **Settings** and **Help** menu items, for more information read the sections about the Settings Menu and Help Menu of the KDE Fundamentals with these additional entries:

Settings \rightarrow **Color Theme**

Use a different color scheme from the system's global color schemes described in the System Settings module Colors.

$\textbf{Settings} \rightarrow \textbf{Show Tabs}$

Tabs are moveable using the left mouse button and have actions in the context menu to close documents, copy the path to the clipboard or open the folder of the document in the filemanager. Using the **Quick Open** button makes switching between documents easy.

Click the button with the left mouse button to open a menu with actions from the **ViewSplit View** menu.

$\textbf{Settings} \rightarrow \textbf{Show Path in Titlebar}$

If enabled the full path of the active document is displayed, otherwise only the filename. This is useful if you edit several files with the same filename to distinguish them.

Chapter 9

Configuring Kate

Anders Lund

9.1 Overview

Kate offers several means of tweaking the application to behave as desired. The most important ones are:

The Configuration Dialog

The main configuration tool, allowing you to configure the Kate application, the editor component and the usage of plugins.

The Settings Menu

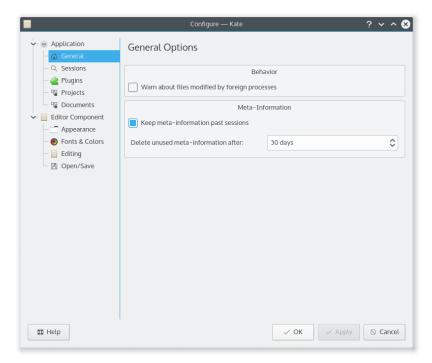
Allows you to change often used settings, and to launch the configuration dialogs.

The View Menu

Allows you to split the current frame, as well as to display the icons and line numbers pane for the currently edited document.

The embedded terminal uses the configuration defined in the System Settings, and may also be configured by clicking the right mouse button to display a context menu.

9.2 The Main Configuration Dialog



The Kate configuration dialog displays a tree of topics on the left, and a configuration page corresponding to the selected topic on the right.

The configuration is divided into two groups, namely:

- Application configuration
- Editor component configuration

9.3 The Kate Application Configuration

This group contains pages to configure the main Kate application

9.3.1 General

This section contains a few global options for Kate

Behavior

Switch to output view upon message type

This option allows configuring when Kate should show an output pane depending on the type of action output.

It is possible to choose between **Never**, **Error** (on error), **Warning** (on warning or above), **Info** (on info or above), and **Log** (on log or above).

Use a separate dialog for handling externally modified files

When enabled, Kate will notify you with a modal dialog about all files modified from outside the application whenever the main window receives input focus. You will

be able to deal with several modified files at once, you can reload, save or discard changed files in groups.

If not enabled, Kate will individually ask you what to do for each modified file only when that file's view receives focus.

Quick Open

Match Mode

Set the list mode for the Quick Open tool. The files can be matched by their name or by their path.

List Mode

Set the list mode for the Quick Open tool. It is possible to choose from **Current Project Files** and **All Projects Files**.

Tabs

Limit number of tabs

Set the maximum number of tabs. Choose **Unlimited** if you do not want to restrict this number.

Auto hide tabs

When checked tabs will be hidden if only one document is open.

Show close button

When checked each tab will display a close button.

Expand tabs

When checked tabs take as much size as possible.

Double click opens a new document

When checked double click opens a new document.

Middle click closes a document

When checked middle click closes a document.

Allow tab scrolling

When checked this will allow scrolling in tab bar when number of tabs is large.

Elide tab text

When checked tab text might be elided if its too long.

Tabs

Backward button pressed

Allows selecting the mouse back button action between the **Previous tab** and the **History back** items.

Forward button pressed

Allows selecting the mouse forward button action between the **Next tab** and the **History forward** items.

9.3.2 Session

This section contains options related to using sessions.

Application Startup Behavior

Select how you want Kate to behave at startup. This setting can be overridden by specifying what to do on the command line.

Start new session

With this option, Kate will start a new, unnamed session when you start the application.

Load last-used session

Kate will use the most recently opened session at startup. This is good if you want to use the same session always or switch rarely.

Manually choose a session

Kate will display a small dialog that lets you choose your preferred session, or load the default session if none have been saved. This is the default behavior. Nice if you use a lot of different sessions frequently.

Application Startup/Shutdown Behavior

Select how you want Kate to behave at shutdown. It is possible to define what Kate should **Automatically save and restore**.

Newly-created unsaved files

With this item checked, Kate will automatically save all newly-created unsaved files.

Files with unsaved changes

This item allows configuring Kate for automatically saving all files with unsaved changes on shutdown.

Close Kate entirely when the last file is closed

If enabled, Kate will shutdown when the last file being edited is closed, otherwise a blank page will open so that you can start a new file.

Session Elements

Include window configuration

If enabled, Kate will save the window configuration with each session.

Keep meta-information past sessions

When enabled, Kate will store meta data such as bookmarks and session configuration even when you close your documents. The data will be used if the document is unchanged when reopened.

Delete unused meta-information after

Set the maximum number of days to keep meta information for previously opened files. This helps keep the database of meta information reasonably sized.

Any changes to the session data (opened files and, if enabled, window configuration) will always be saved.

9.3.3 Plugins

This page provides a list of installed plugins for the Kate application. Each plugin is represented with its name and a short description. You can check the checkbox with an item to enable the plugin it represents.

If a plugin provides configuration options, a section to access those will appear as a child of this page.

For more information about the available plugins, see chapter 4.

9.3.4 The Editor Component Configuration

For information about this section of the configuration dialog, see the Editor Component Configuration section of the KatePart Handbook.

9.3.5 Configuring With Document Variables

For information about using document variables with Kate, see the Configuring with Document Variables section of the KatePart Handbook.

Chapter 10

Credits and License

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Appendix A

Regular Expressions

For information about using regular expressions in Kate, see the Regular Expressions appendix to the KatePart Handbook.

Appendix B

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