

# CellML Editor Documentation

## Editor Environment

### Creating a new CellML File

There are two methods of creating a new file:

- Empty File: an empty file can be created by selecting the `New File` option under `File` (File → New File).
- Template File: a templated file can be created by selecting using the `New from Template` option under `File` (File → New From Template).

### Opening an Existing CellML File

#### From Local Storage

CellML files that are stored on the local storage can be opened using the `Open File` option under the `File` menu.

By default, it will only display files with the `.cellml` file extension. To change this, choose `All File` from the dropdown menu above the `Open/Cancel` button.

#### From the Internet using an URL

Online CellML files can be downloaded and opened using the `Open File From URL` option under the `File` menu.

### Saving an Opened CellML File

The current active file can be saved by using the:

- `Save File` option under `File` (File → Save File)
- Keyboard shortcuts `Ctrl/Cmd + S`.

If the file hasn't been saved before, a prompt will appear to select the save location.

If the file has been modified since it was last saved, the title of the file will be in italic and followed by an asterisk (\*).

## Viewing the CellML 2.0 Documentation

The official CellML 2.0 Specification can be viewed by selecting `Help → CellML 2.0 Specification`.

## Viewing Documentation about an Element

The documentation for a particular element can be viewed by hovering the mouse cursor over the start tag of the element.

## Editing

### Toggling Editing Mode

<! Todo: Write something about toggling editing mode !>

### Autocompletion

The Auto-completion feature of the editor can automatically suggest and complete element tags to you as you type. The suggestion prompt can be triggered by

- Typing the left angled bracket (<)
- Typing an elements name
- Ctrl/Cmd + Space

Selecting one of the suggestions will cause the editor to autocomplete that tag along with its required attributes.

Note: only elements that are valid are suggested (E.g. <math> would not be suggested when directly under the <model> tag).

## Import / Export Components

The component library can be accessed on the pane on the left side of the editor.

To export an element to the library:

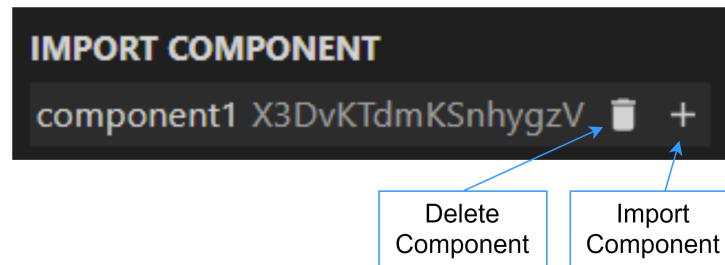
- Right click on the desired element to bring up the context menu
- Select `Export Component`
- Name the export element (does not have to be unique)

To import an element from the library:

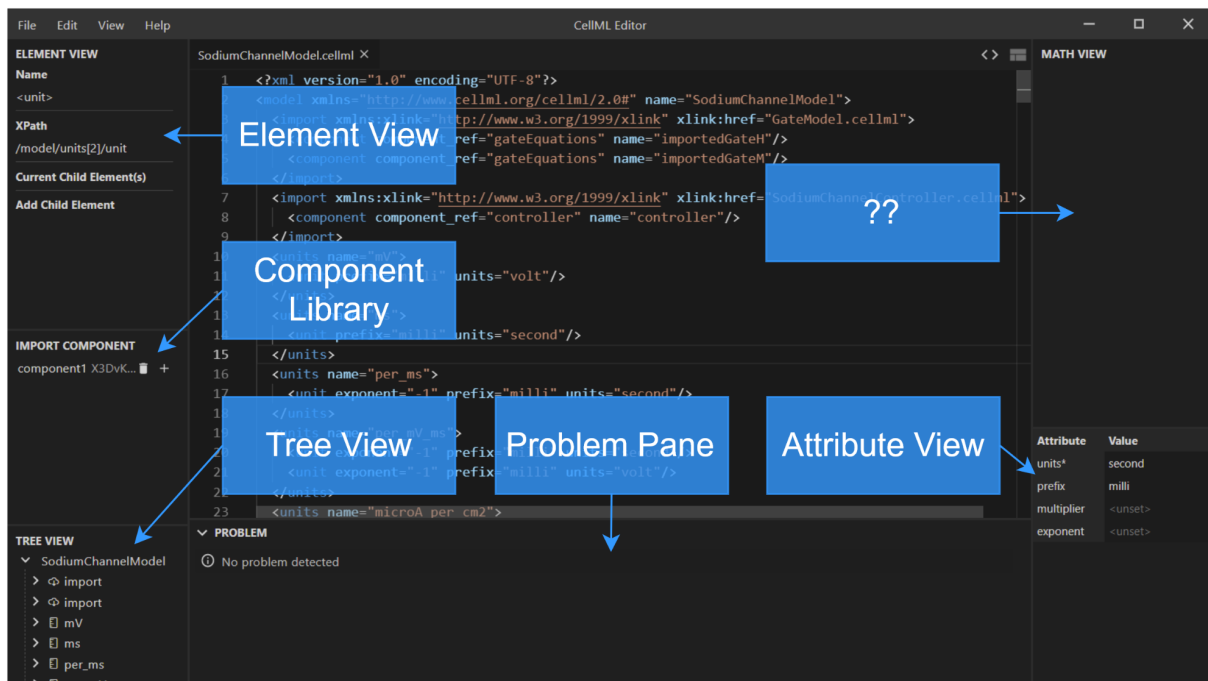
- Optional: Click on the element in the library to preview the element
- Place text cursor at the position to insert the element
- Click the plus icon to insert the element

To remove an element from the library:

- Optional: Click on the element in the library to preview the element
- Click the bin icon to delete it



## Panes



## Attribute View Pane

The Attribute View provides a list of the attributes of the element that is currently under the text cursor and provides a way to edit their values. Both required (marked with an asterisk) and optional attributes are displayed regardless of having a value or not.

## Element View Pane

The `Element View` provides information and actions for the element that is currently under the text cursor. It has two sections for manipulating the element:

- The `Current Child` section provides a list of all the child elements of the selected element. Each child can be removed by clicking on the cross (X) button.
- The `Add Child` section allows a child element to be added to the selected element by clicking on the plus (+) button. Note: only valid child elements are listed.



## Tree View Pane


The `Tree View` provides a tree representation view of the entire CellML model. Clicking on an element will scroll the text editor to the corresponding element.

## Problem Pane

The Problem Pane displays a list of all the errors or problems found in the active file. If the line number of a problem is available, clicking on the problem will cause the editor to automatically scroll to that line.

The definition for the three types of problem used in the Problem Pane is as followed:

Icon	Definition
	Information: provides useful information E.g. No file loaded
	Warning: indicates that something is unexpected or doesn't look right E.g. Missing required attributes

	Error: indicates that something has gone wrong or cannot be parsed E.g. Syntax error - missing closing tag
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## Shortcuts

Action	Shortcut (Windows)	Shortcut (MacOS)
<b>Global Shortcuts</b>		
Open File	Ctrl + O	Command + O
Save File	Ctrl + S	Command + S
New File	Ctrl + N	Command + N
Close Current File	Ctrl + W	Command + W
Zoom In	Ctrl + =	Command + =
Zoom Out	Ctrl + -	Command + -
Force Reload	Ctrl + Shift + R	Command + Shift + R
<b>Text Editor Shortcuts</b>		
Cut	Ctrl + X	Command + X
Copy	Ctrl + C	Command + C
Paste	Ctrl + V	Command + V
Redo	Ctrl + Z	Command + Z
Undo	Ctrl + Y	Command + Y
Format File	Alt + Shift + F	Option + Shift + F
Trigger Autocomplete	Ctrl + Space	Command + Space

# Troubleshooting

## Interface Issues

Most interface issues can be resolved by force reloading the interface window using either the shortcut Ctrl/Cmd + Shift + R or through the menu `Help → Force Reload Window`.

## File Related Issues

Deleting the persistent state file (.cellmleditor/data.nedb) may resolve issues with file related issues.

## Bug Report

If you wish to report an issue or bug, email us at [<! Insert Email Here !>](mailto:cellmleditor@github.com)