TabPane User Experience Documentation

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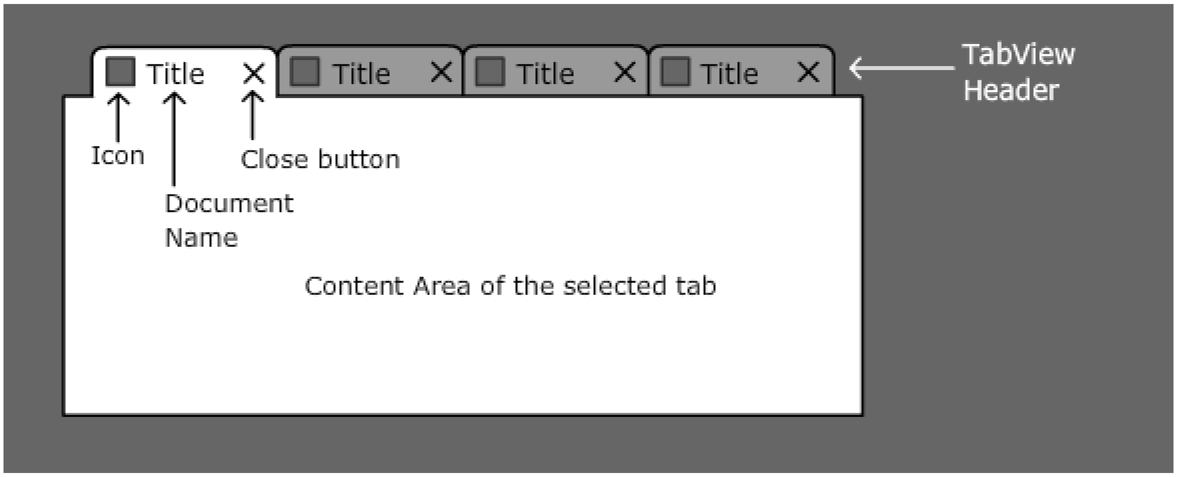
1. Introduction

This document is the user experience specification for the JavaFX Tabs control.

2. TabView Overview

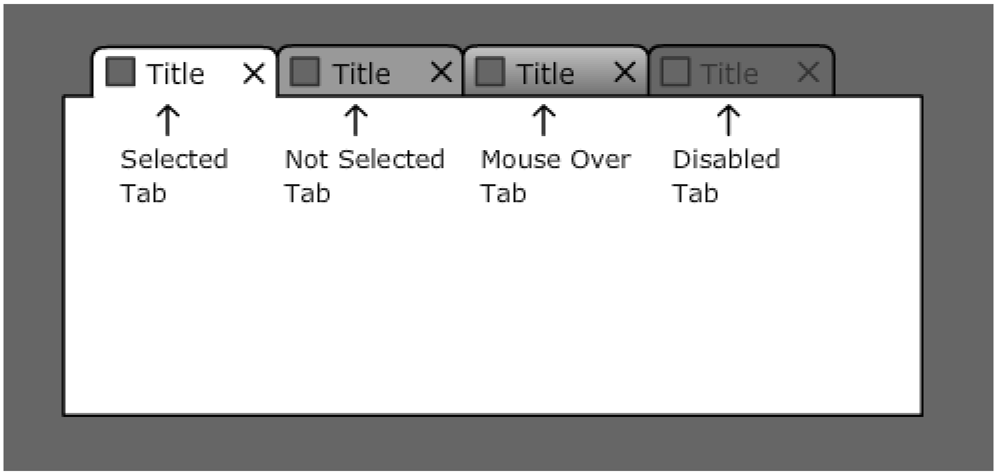
A TabView is a UI control that allows multiple documents to be contained within a single window and switch between them. Tabs can be placed on any side of a document area or nested. Typically there is a TabView header and a content area. Every tab in the header can contain an icon, a title, and a close button.

Figure: *Basic parts of a TabView UI control*



There are a few basic states of tabs. Tab can be selected, not selected, disabled, or it there is an visual effect when mouse is above the tab.

Figure: *Basic states of tabs*



3. TabView Interaction Design

3.1 Basic Features

Let's mention features that are sort of standard ones and you can find them in most of TabView implementations

- Show and hide icons, titles or close buttons if necessary. It can be different for the selected tab and other tabs (see image below). Other tabs than selected one can appear as minimized. There are visible just their icons without titles and close buttons.

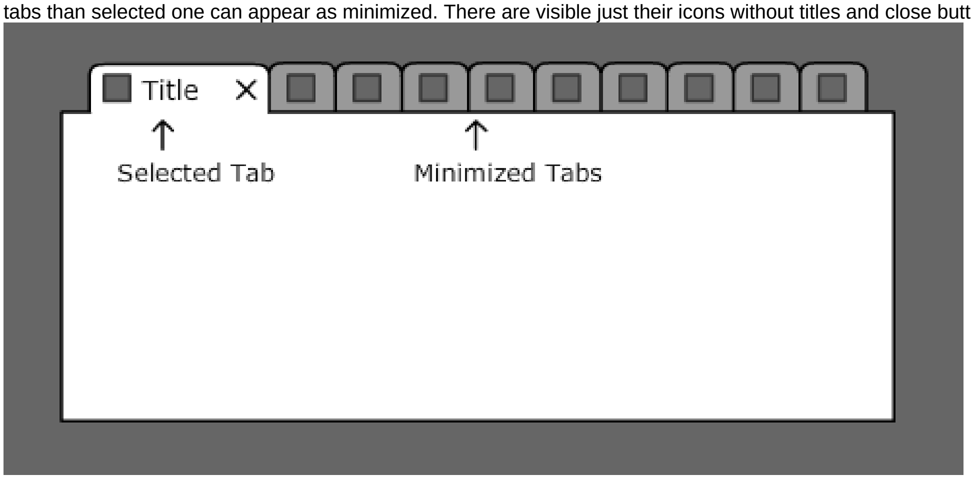


***Figure**: Different appearance for the selected tab and other tabs*

- Different sizes of icons are supported.
- Display a Tooltip above tab. E.g. It can be used for detail description of the file opened in the content area or showing its path.

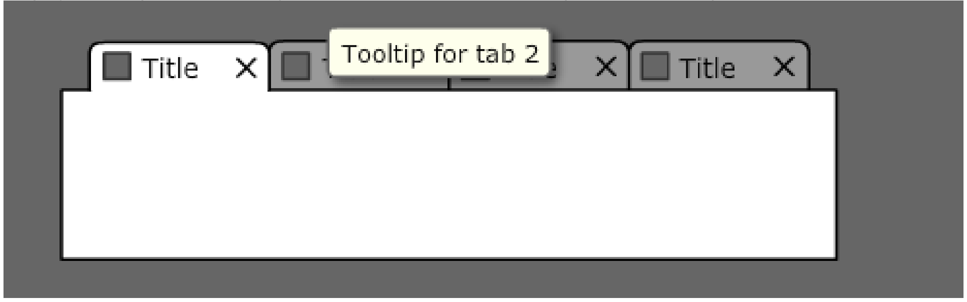


***Figure**: A tooltip above second tab*

- Support contextual menu invoked by right mouse click from a tab.Usually it contains actions related to manipulation with the tab or actions related to tab's content. These actions are typically visually separated.

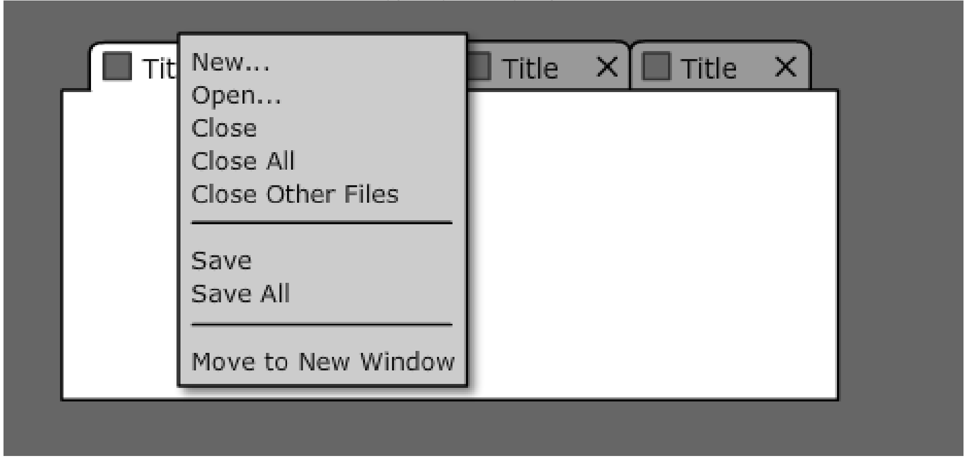
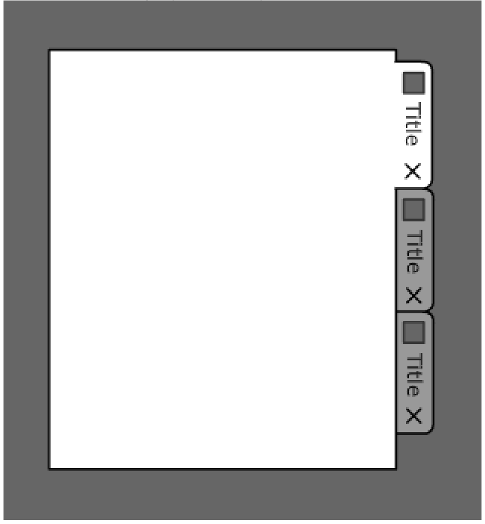
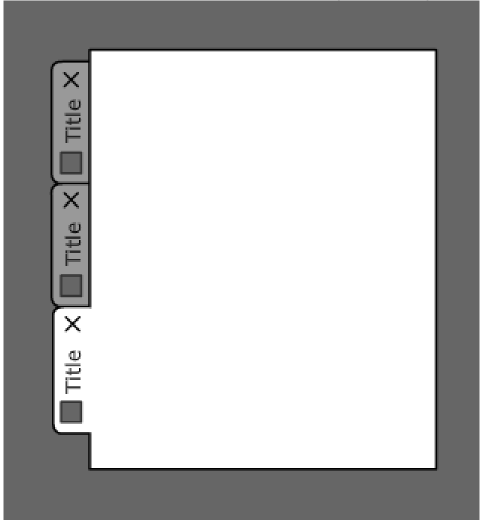
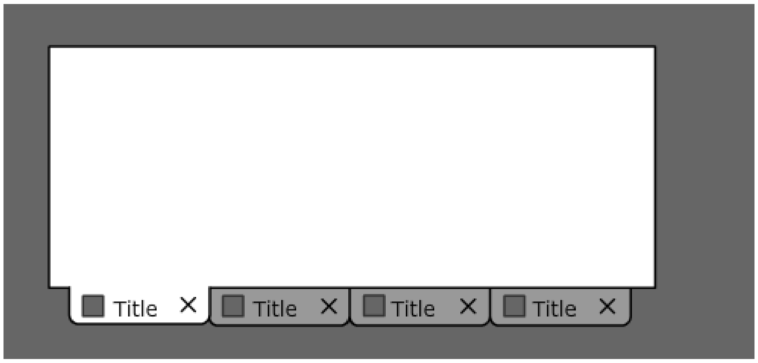


***Figure**: A contextual menu above first tab*

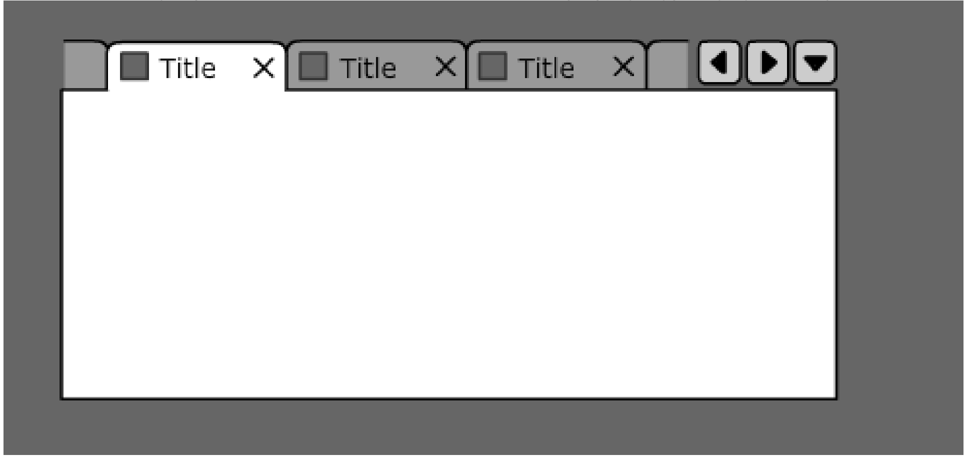
- Tabs can be displayed on any side of the content area. Orientation of tabs can be the same (horizontal) or different.

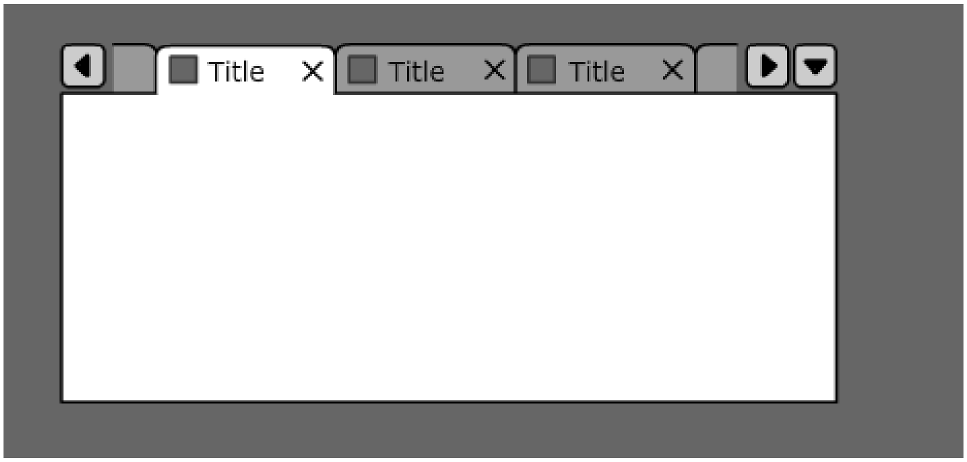


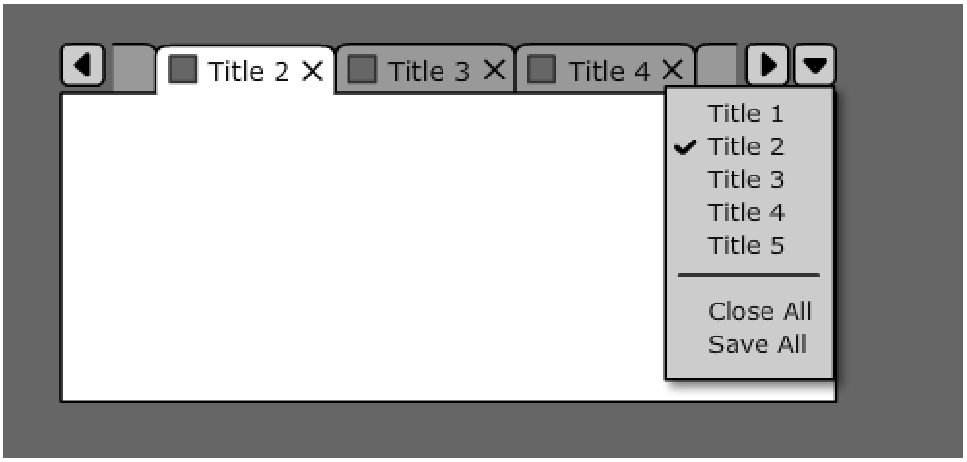




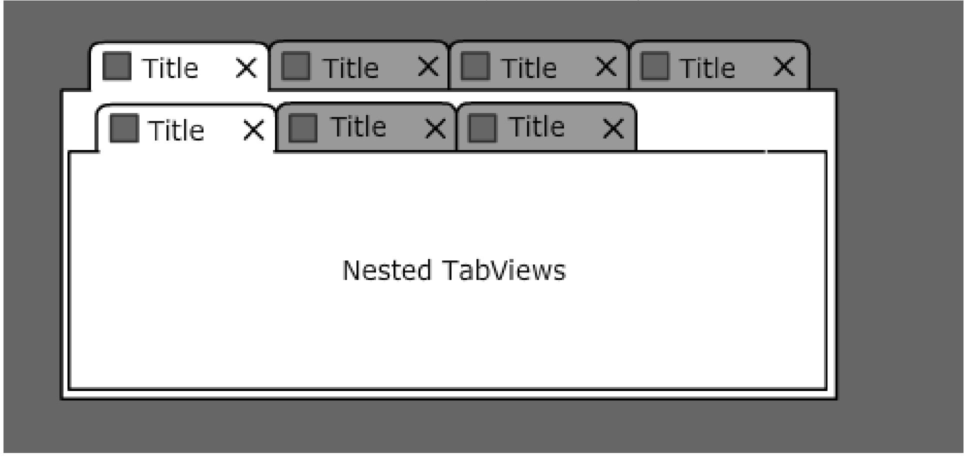
- If there isn't enough space to show all tabs it has to be handled properly. Typically by showing arrows or full list of tabs next to the tabs.







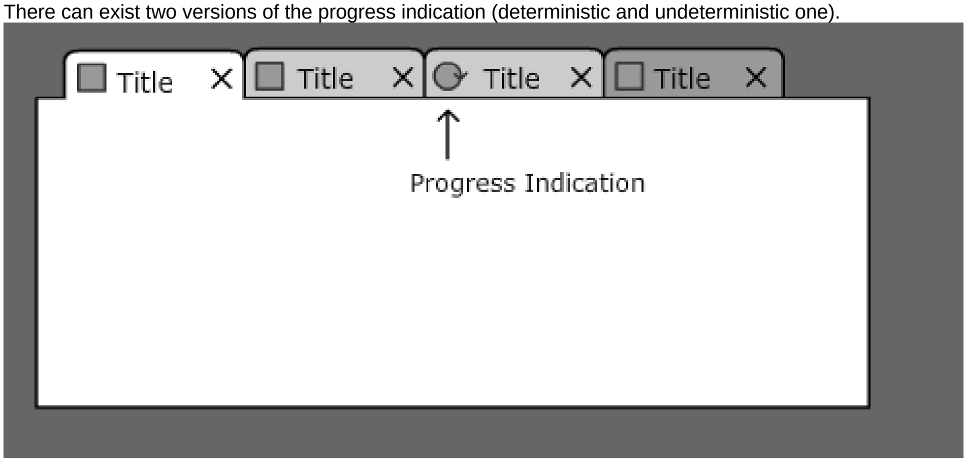
- TabView can be nested in other TabView and then they behave as independent.



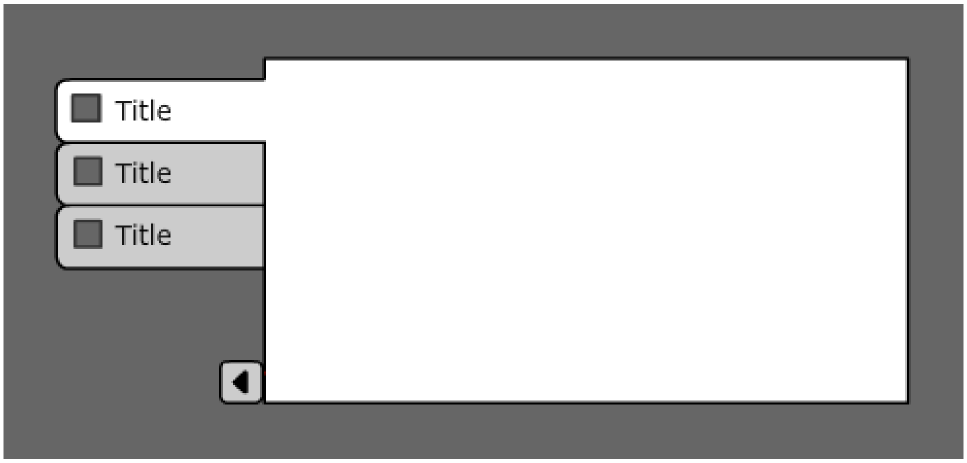
3.2 TabView - Advanced Features

There are additional features that can make TabView UI control even more advanced, so let's see a few of them:

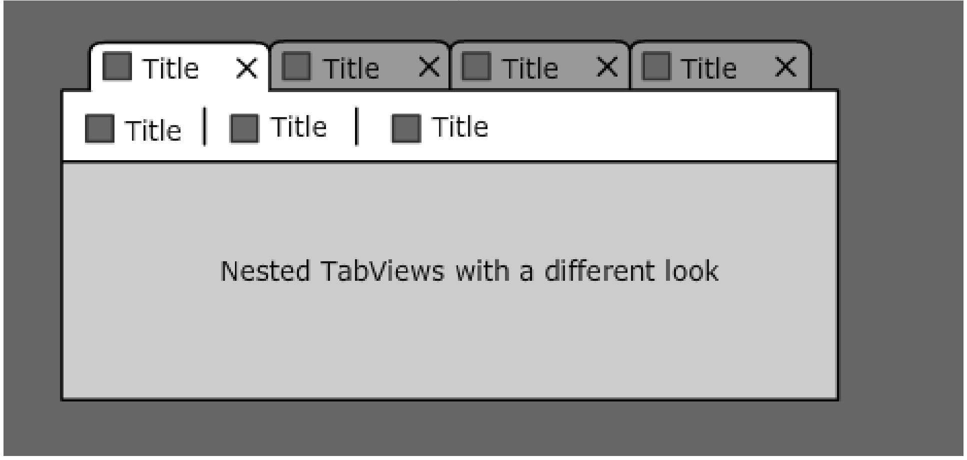
- Show progress indication if tab's content is being updated. The progress indication can be shown instead of an icon inside the tab header. There can exist two versions of the progress indication (deterministic and undeterministic one).



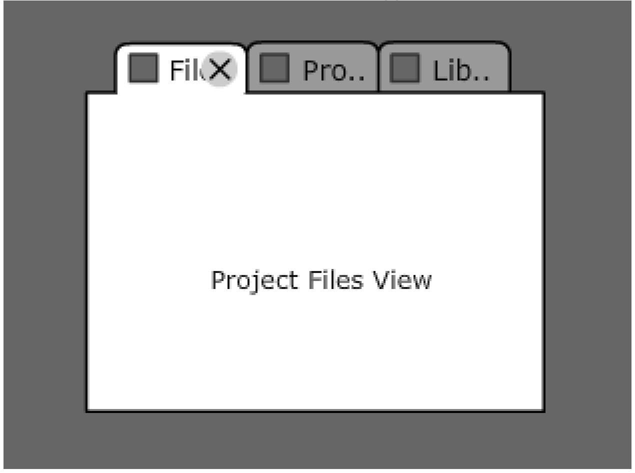
- Possibility to expand or collapse tabs so user can do that manually if he wants. This can be used for finger tabs (see example below) or when user wants to see more of the content area.



- To be able to differentiate a nested TabView visually from the first one.



- Ability to automatically squeeze all tabs in a limited area. This is useful when tabs are clearly recognizable by an icon or by a few first letters of tab titles. The close buttons can appear either on selected tab only or just during roll over tabs.



- Mouse scroll button can work as a quick navigation among tabs that are hidden.

3.3 Keyboard Support

The following table describes how keystrokes should be processed in case a TabView has focus:

Keystroke	Action
LEFT/UP Arrow	When focus is on a tab in the TabPane header, move focus to the previous tab and display its corresponding page.
RIGHT /DOWN Arrow	When focus is on a tab in the TabPane header, move focus to the next tab and display its corresponding page.
HOME	When focus is on a tab in the TabPane header, move focus to the first tab and display its corresponding page.
END	When focus is on a tab in the TabPane header, move focus to the last tab and display its corresponding page.
CTRL-TAB/ CTRL-PAGE DOWN	Move focus to the next tab and display its corresponding page. Wrap from last to first.
CTRL-SHIFT-TAB/ CTRL-PAGE UP	Move focus to the previous tab and display its corresponding page. Wrap from first to last.

TAB	Move focus to the next control in selected tab. If focus is on the last control, move focus to the next focusable control outside the TabPane.
SHIFT-TAB	Moves focus to the previous control in selected tab. If focus is on the first control, move focus to the selected tab in the TabPane header. If focus is on the selected tab, move focus to the previous focusable control outside the TabPane.