

KOFFICE 2 INTERFACE



FEBRUARY 13, 2006

Foreword

Most office applications focus on multi-row toolbars packed with buttons, forcing users to hunt for the command they need. It seems developers have no other place than to drop those commands in the toolbar, whether due to lack of alternative spaces or the need to remain familiar to users of commercial office applications that behave the same way. A lot of this functionality is rarely used by likely the majority of users, so instead, this esoteric functionality should be removed from the toolbar and remain in well-organized menu bars, cleaning up the main interface and actually improving the memorability of the locations of these commands by removing the distracting clutter. The actual toolbar will contain only basic and often-used application functions like opening and saving documents or inserting a new frame.

In addition to that, on the left side of all three applications is the Sidebar, which houses context-sensitive functionality. In KWord and KSpread, the Sidebar is divided into two modes--editing and reviewing--each selectable as tabs. Depending on the mode, the controls displayed in the Sidebar change to reflect the situation in the document window, like formatting selected text, adding a comment, or creating a table. In this way, the user finds that the program is always presenting enough functionality to accomplish the task at hand and never too much, adapting to each situation and letting the user work at their own pace. Most of this document gives basic examples of how the Sidebar can present commands clearly.

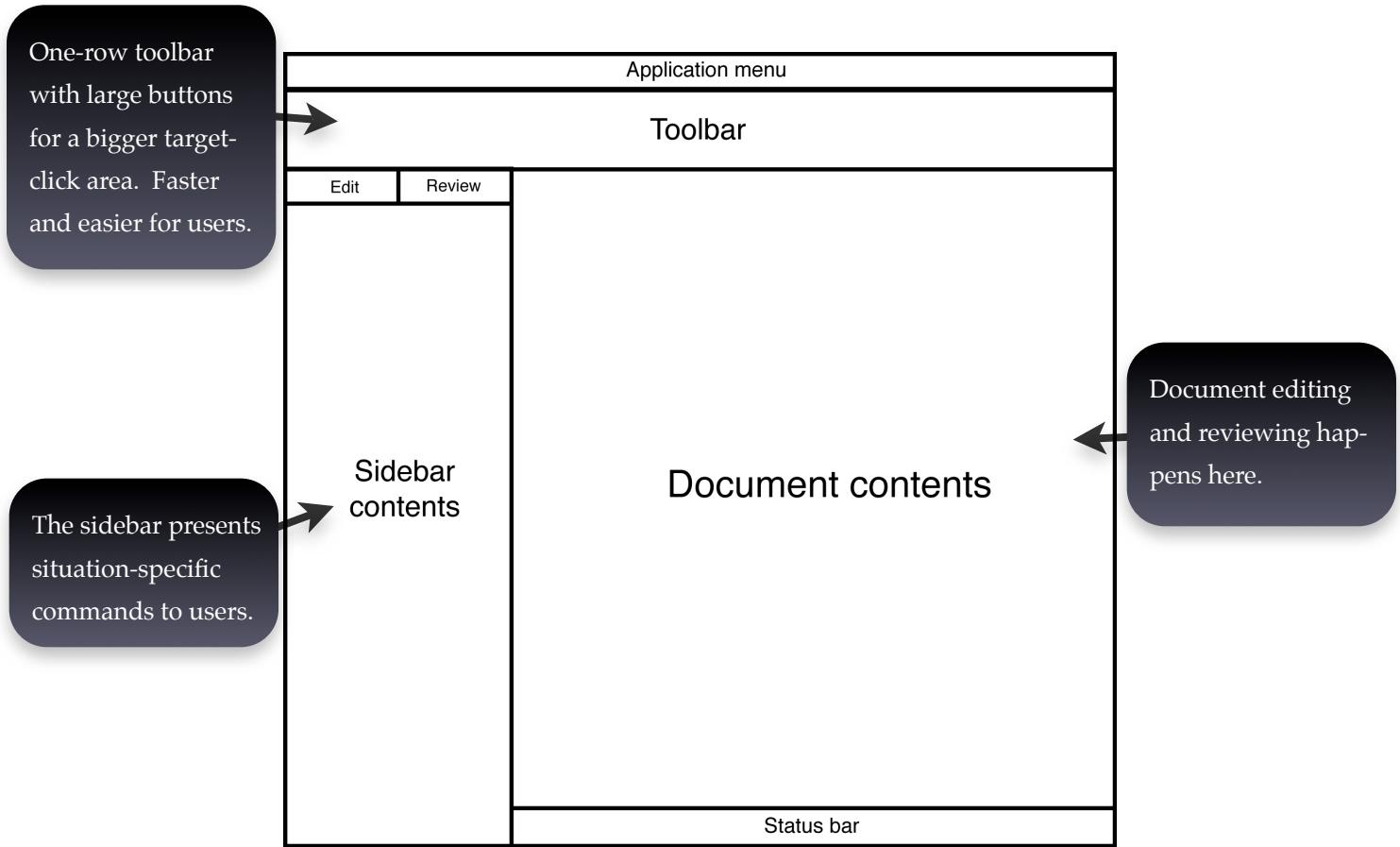
Beyond the reorganization of controls, there is little else that is changed. The KOffice applications rely on well-defined paradigms that have lasted for decades--spreadsheets as grids of cells, documents as virtual pages of selectable text in frames. I believe it's more important to reorganize existing functionality so that it's better presented to users rather than hit them with a new experimental paradigm that might be rejected as too different. This also makes things easier for developers implementing the interface.

I believe simplification through the removal of redundancy and the reorganization of what's left is the most important first step in redesigning the interface. I also believe such an interface shouldn't need much to describe it. It should be obvious enough through detailed diagrams. An unfortunate lack of time prevents me from detailing every dialog, menu, and tab, but the ideas here should be logical enough. I believe users don't need something radically different; they just need something obvious and intuitive.

Preston Sumner

February 14, 2006

The Fundamental Interface



All three applications share this common interface, with application-specific additions. User attention is focused on three areas:

- Editing or reviewing in the document window.
- Executing special commands on the document via the Sidebar to the left of the document.
- Saving, loading, printing at the top of the window in the toolbar, with esoteric functionality in the application menu above it.

Document window

The user's document displays here as an editable, WYSIWYG document.

Sidebar

The sidebar displays controls related to the current situation. It is located on the left side for quicker access, since users' cursors are more often closer to the left side of a document at any given time. If text is selected in the document, standard formatting controls will be displayed in the sidebar for style editing, font selection, and more. Related functionality is grouped into Button Strips for easier memorability. Examples of the ways this presentation could look are given later.

Toolbar and application menu

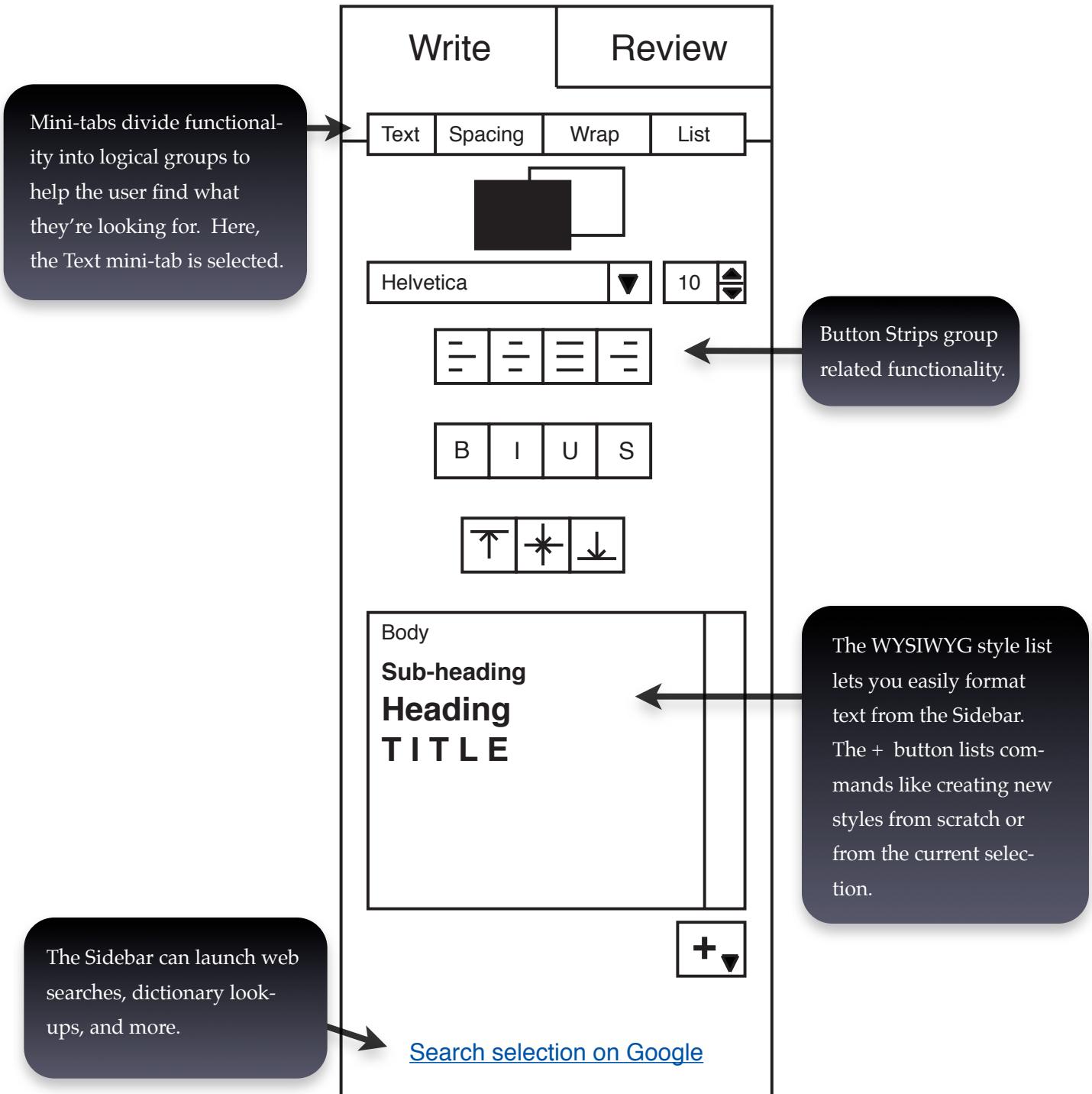
Important commands like saving and printing appear as large buttons in the toolbar. The buttons are larger to make for an easier click-target. Above the toolbar is the application menu where all the application's functionality is available hierarchically. If a user can't find a function anywhere else, it will always be in the menu.



The minimum set of menu items for all the applications might be the above, with application-specific menus added in each application (for instance, a Slides menu in KSpread). Most if not all of these are already used in all the major office applications, both free and commercial, and with standard behaviors. Arrange contains items for sending objects back and forward in the Z-order and auto-aligning, while Format contains items for text formatting commands like bold and italic. Submenus should cleanly organize all of the application's functionality. Submenus under Format might include Table, Text, Chart, and Styles.

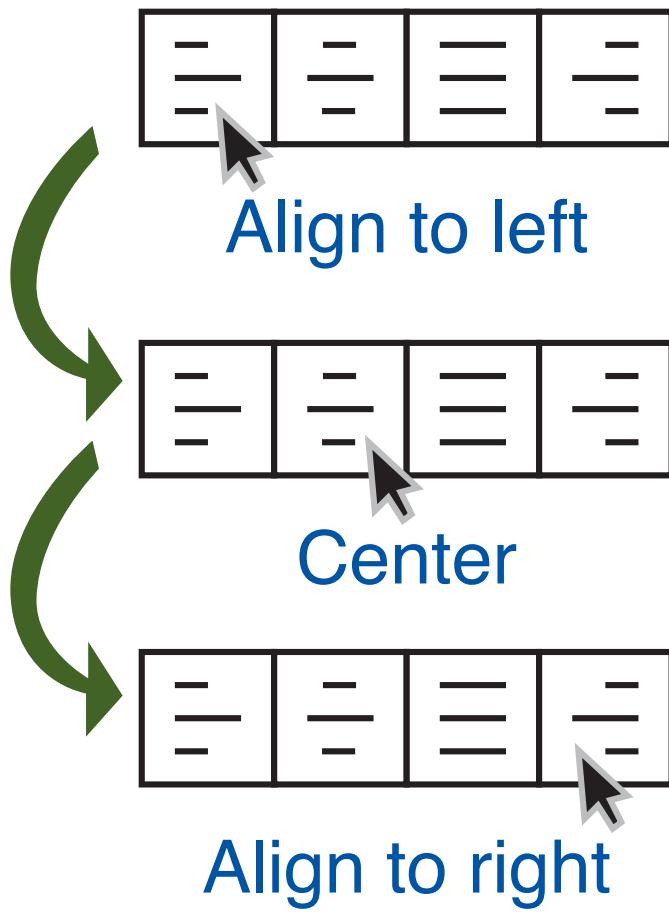
KWord

KWord Sidebar Examples



Here is an example of what could be displayed in the Sidebar when typing text in the document.

Sidebar Button Strip Example

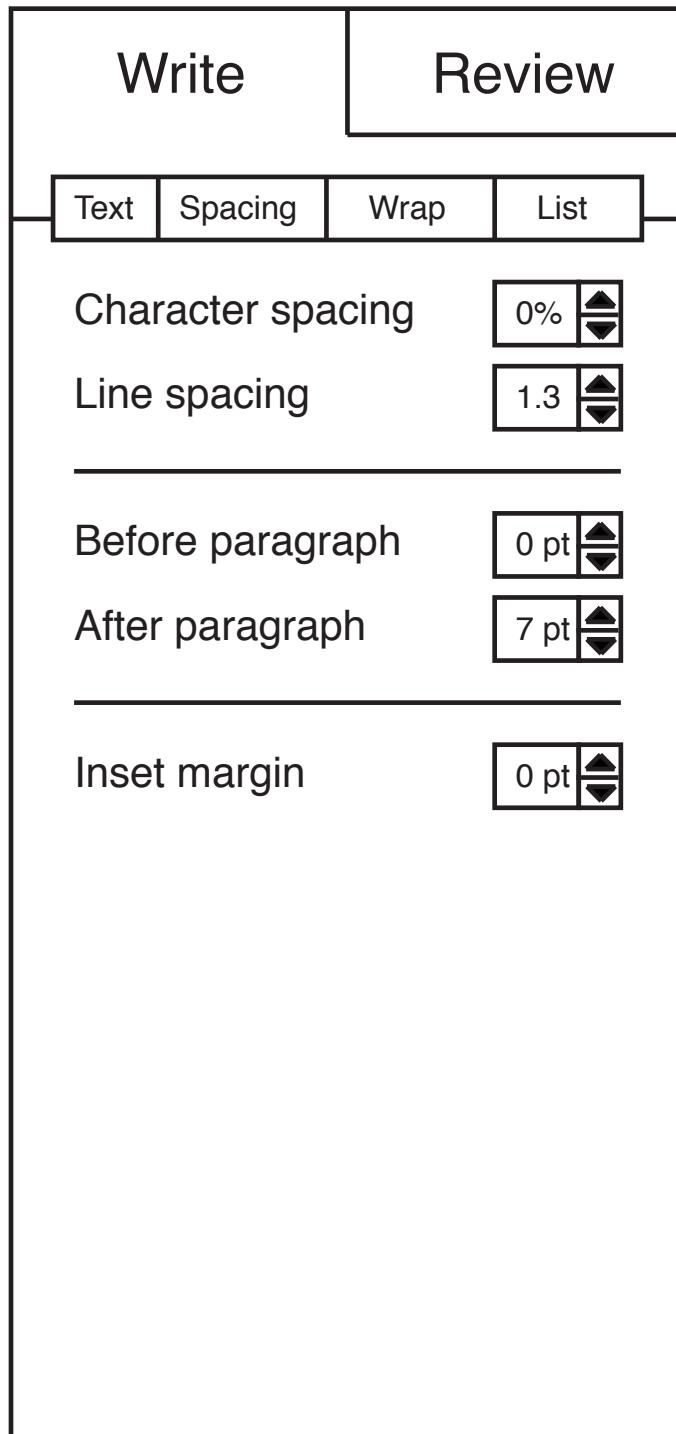


On button mouseover, a label appears below the button strip to tell the user what the button does.

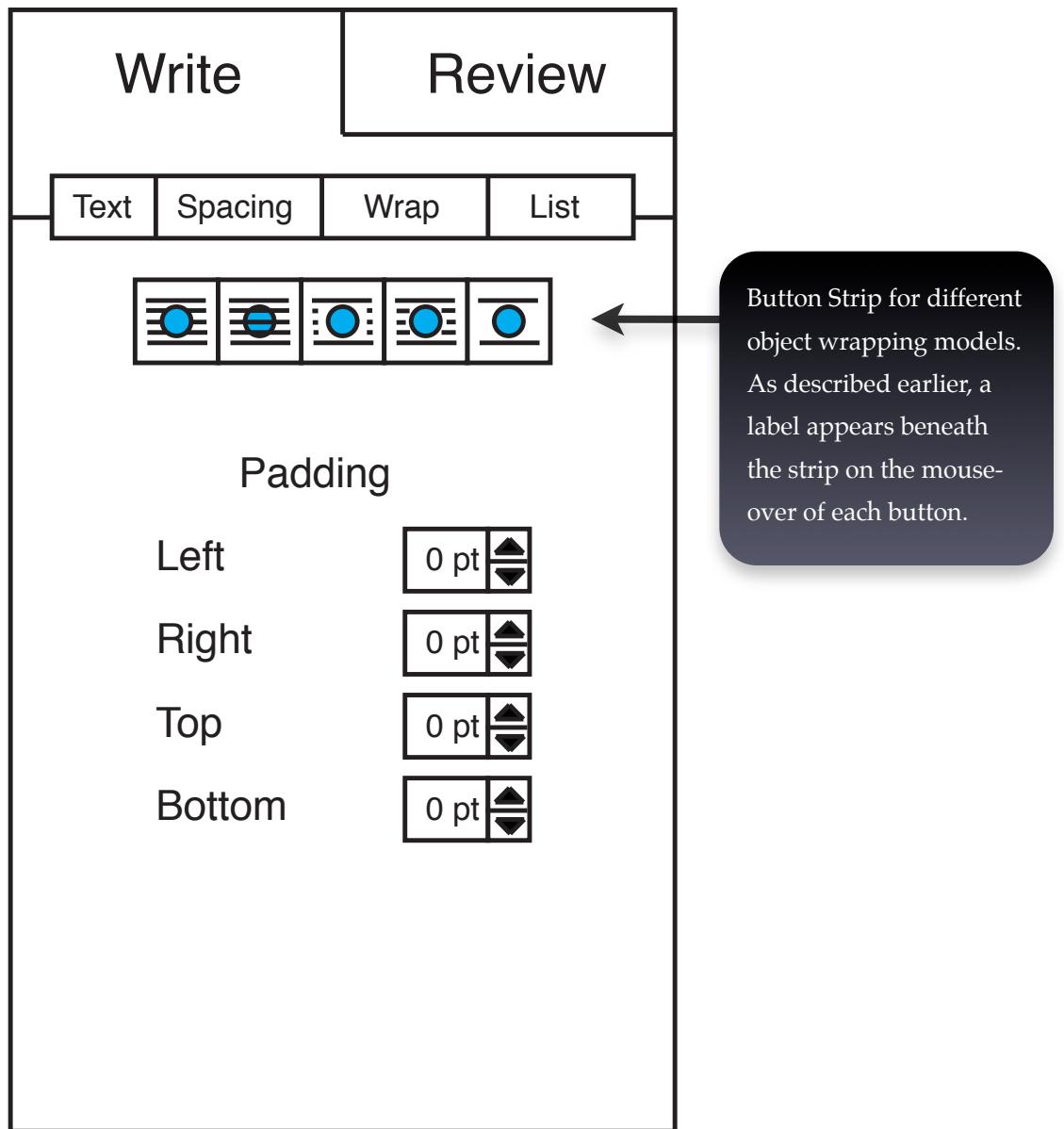
Button labels should use descriptive phrases whenever possible to describe their actions.

KWord Sidebar Mini-tab Examples

The context-sensitive philosophy applies to all the mini-tabs in the KWord Sidebar. The Spacing mini-tab might be laid out as follows:

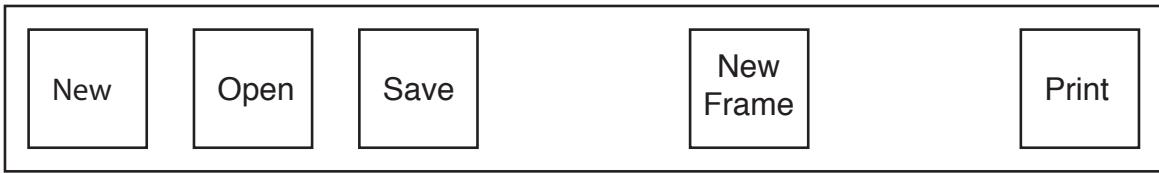


The Wrap mini-tab might look as follows:



The same goes for the List tab which would have controls dealing with lists (bulleted, numbered, etc.) and the Review mode which would present functionality for annotation.

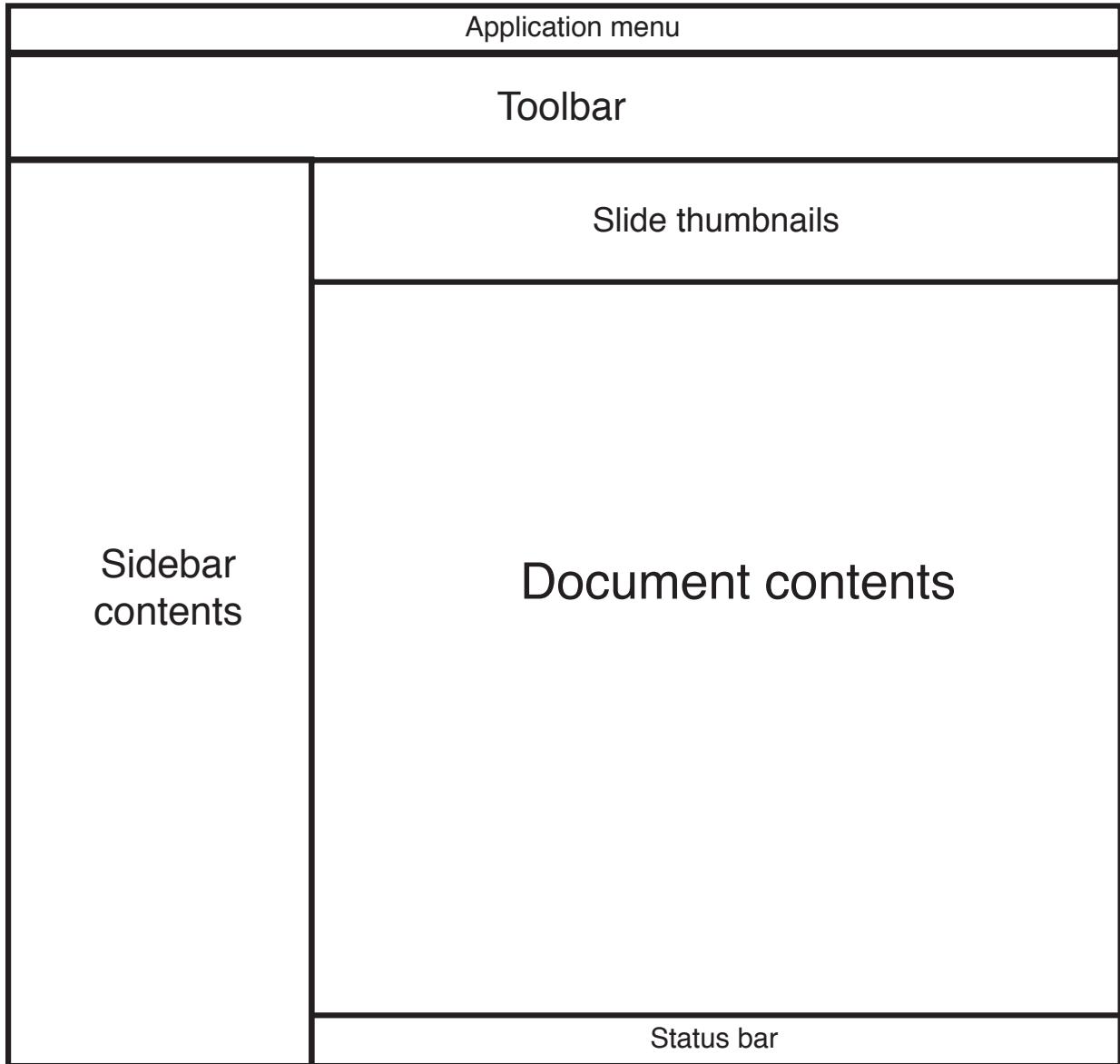
KWord Toolbar Example



New, Open, Save, and Print perform as expected. New Frame inserts a new frame into the document. The user can click the button to create a frame in a default location, or drag from the button to tear off and place a frame at a specific location. A translucent frame graphic is displayed behind the cursor during the drag operation.

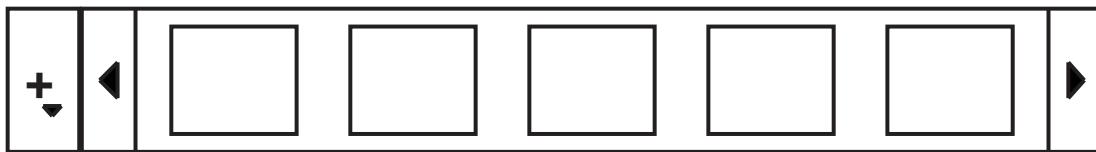
KPresenter

Interface



KPresenter adds a new horizontal area above the document window, called Slide Thumbnails. This displays scrollable thumbnail previews of the slides.

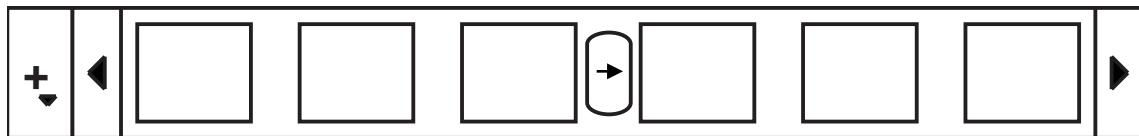
Slide Thumbnails Examples



Dragging slide thumbnails around with the mouse animates them as they slide over to make space for the new slide, similar to icons in the Mac OS X Dock. The visual feedback is subtle and useful when arranging a presentation.

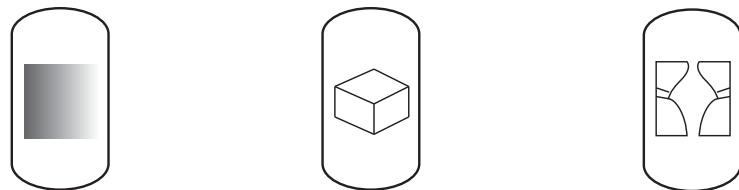
The thumbnails are arranged horizontally and not vertically because:

1. Horizontal mouse movements are easier and more accurate to perform than vertical ones.
2. Screen resolutions are wider than taller, so more slides can be displayed.



Slide transitions are drawn as icons between thumbnails. You can drag a new transition from the KPresenter toolbar into the space between slides. Slides animate as they move over slightly to make space for the icon. Transitions are selectable and display editing options in the Sidebar when clicked.

Transitions might be drawn with a different abstract symbol to signify the transition type. A fade transition might have a color gradient, a cube transition might display a cube, and a split transition might display tiny opening theater curtains. All this feedback makes it easier to see the behavior of the presentation at a glance without having to play it.



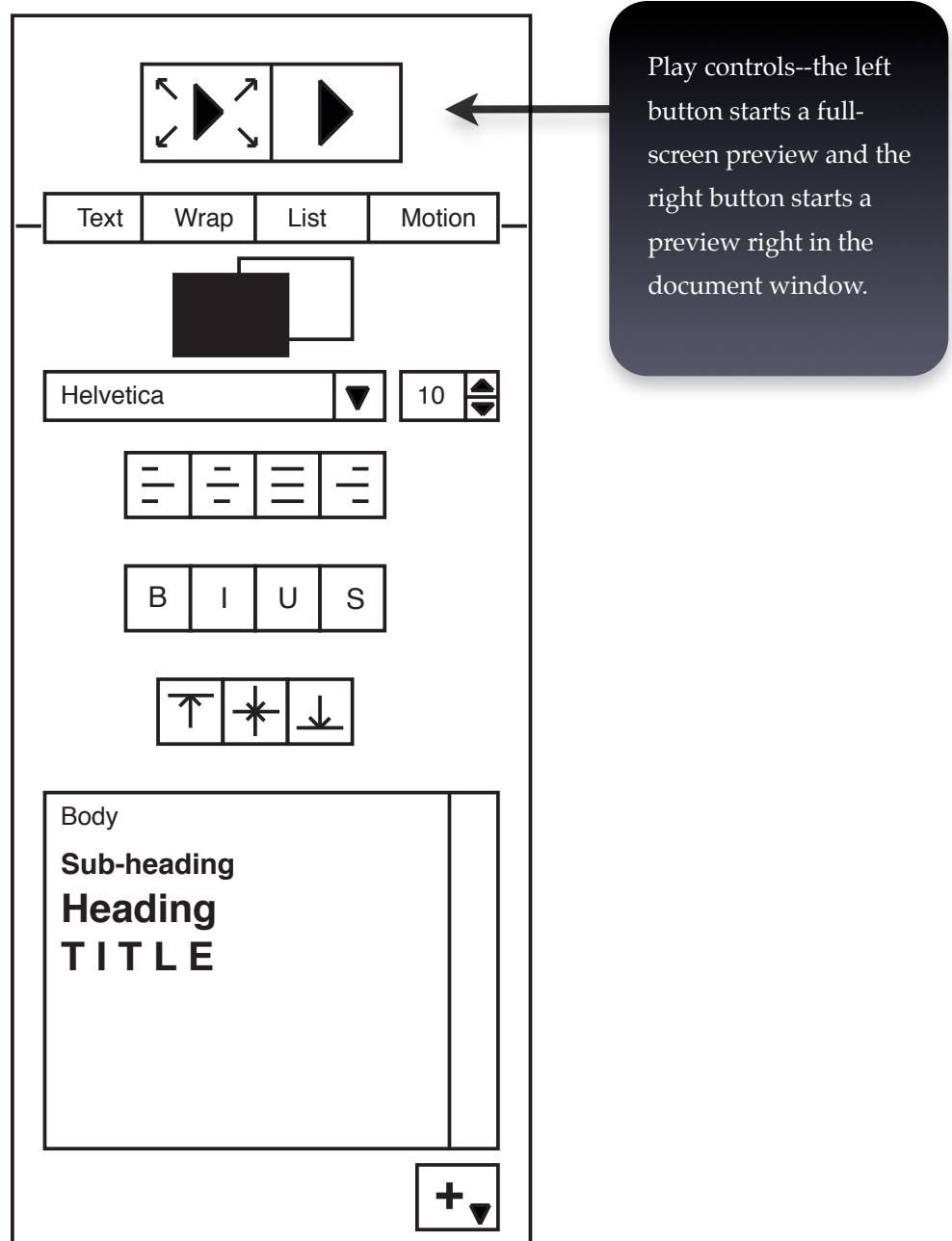
KPresenter Toolbar Example



New Frame behaves as it does in KWord. New Transition allows the user to click and create a transition after the current slide, or to drag a new transition into the Slide Thumbnails bar at a specific location. A translucent graphic is displayed during the drag operation.

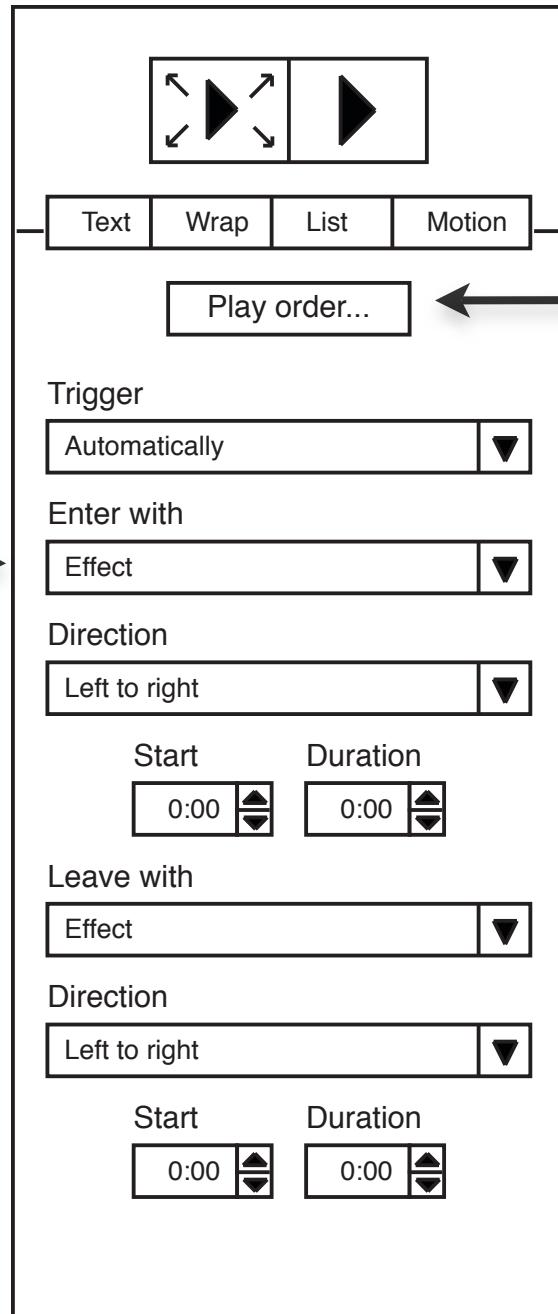
KPresenter Sidebar Example

KPresenter shares much of the text-formatting capabilities of KWord, but with additions like the Motion mini-tab for scheduling and modifying animations and effects for any object.



KPresenter Sidebar Example

Here is a possible layout for the Motion mini-tab:

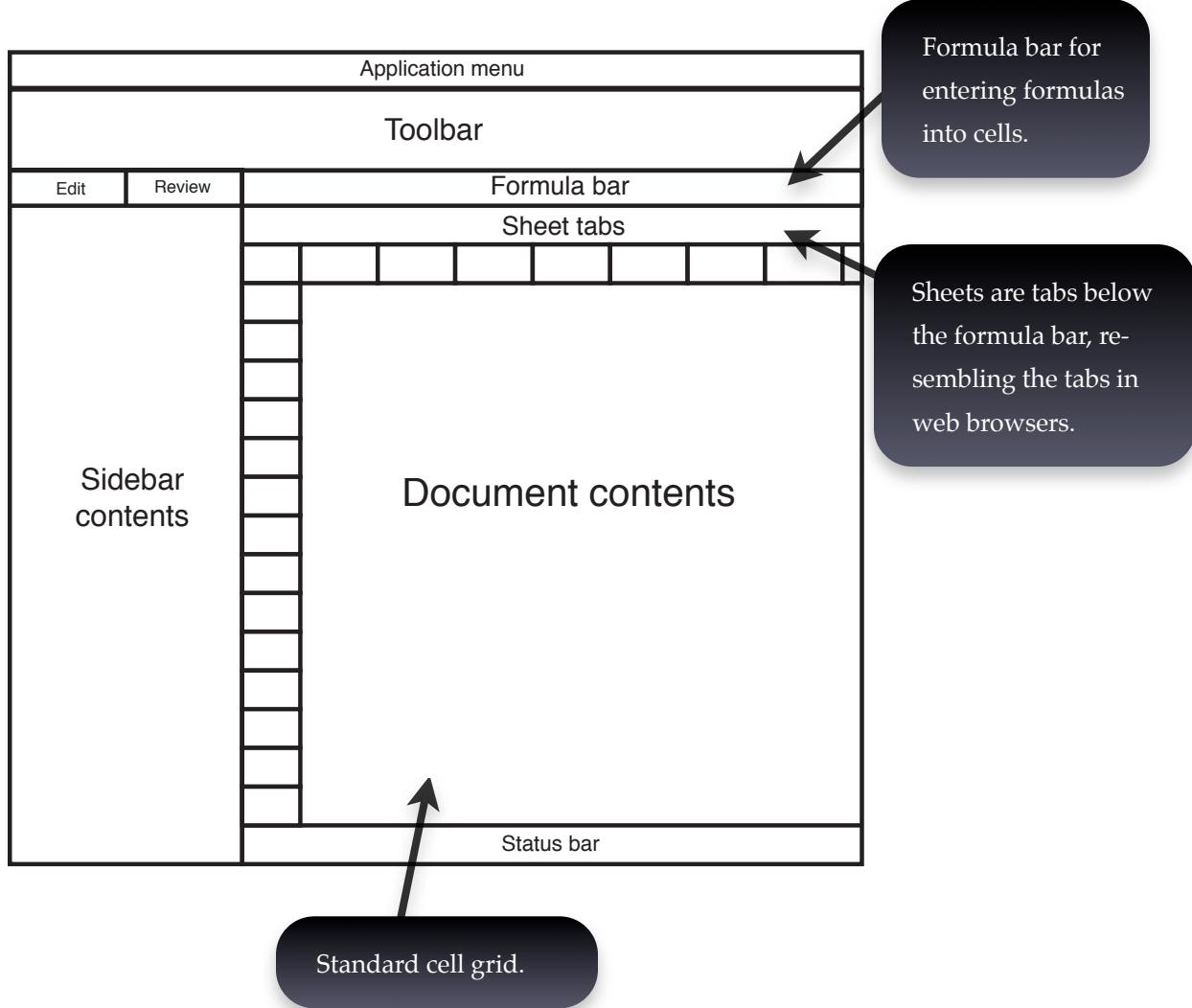


Controls for determining whether the object triggers automatically or when clicked, what entry and exit effects are used (if any), and their start times and durations.

Displays the dialog for editing the play order list of all the objects on this slide. The currently selected object when this button is clicked will already be selected in the dialog, for convenience.

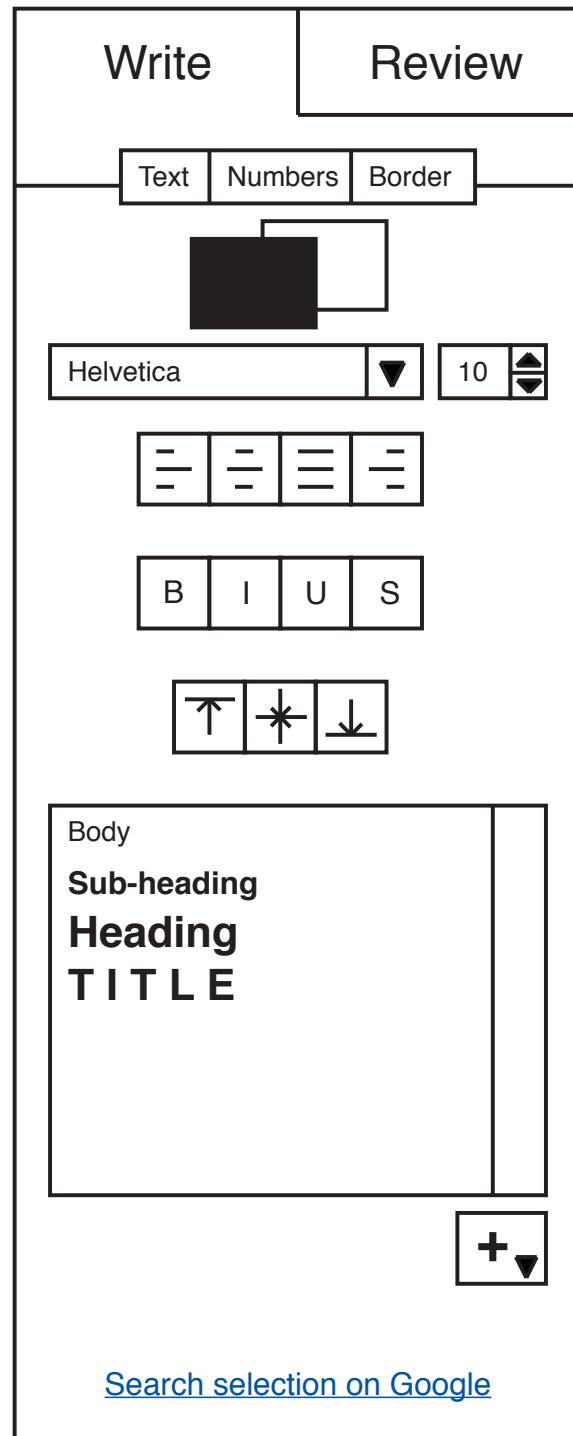
KSpread

Interface



Like KWord and KPresenter, there is a Sidebar for presenting context-sensitive functionality. Sheet tabs are displayed above the document instead of the bottom, resembling tabs in web browsers and making it quicker to switch between worksheets.

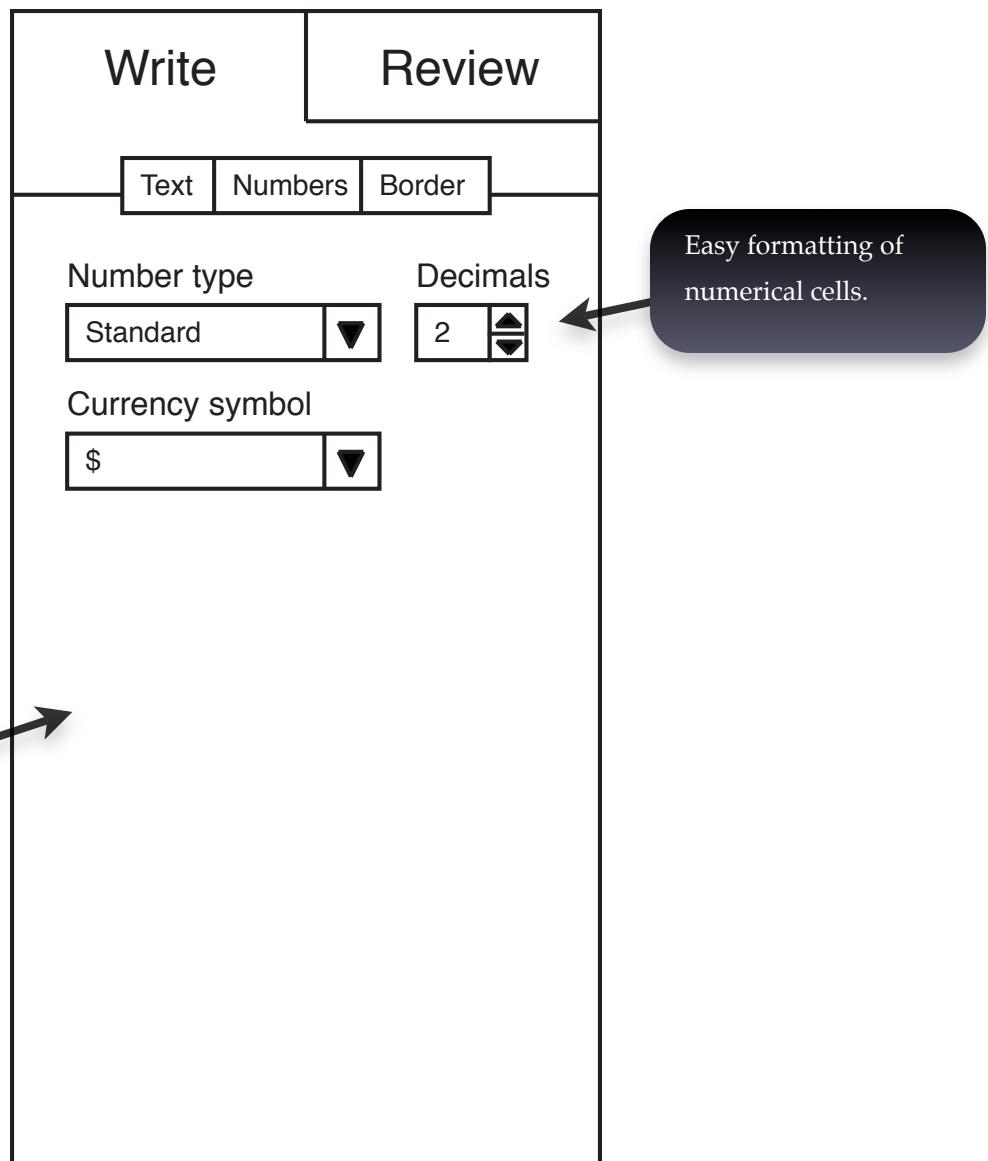
KSpread Sidebar Example



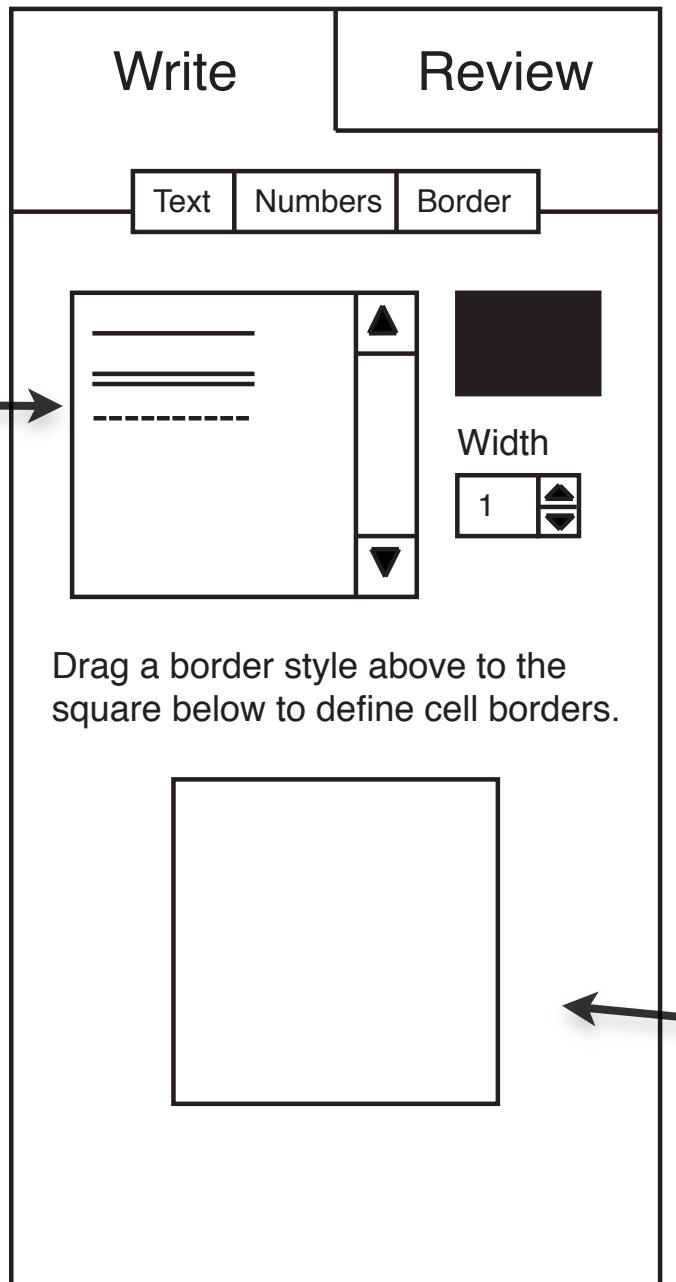
Same text formatting functionality as KWord and KPresenter.

KSpread Numbers Mini-Tab Example

The Numbers mini-tab might be laid out as followed:

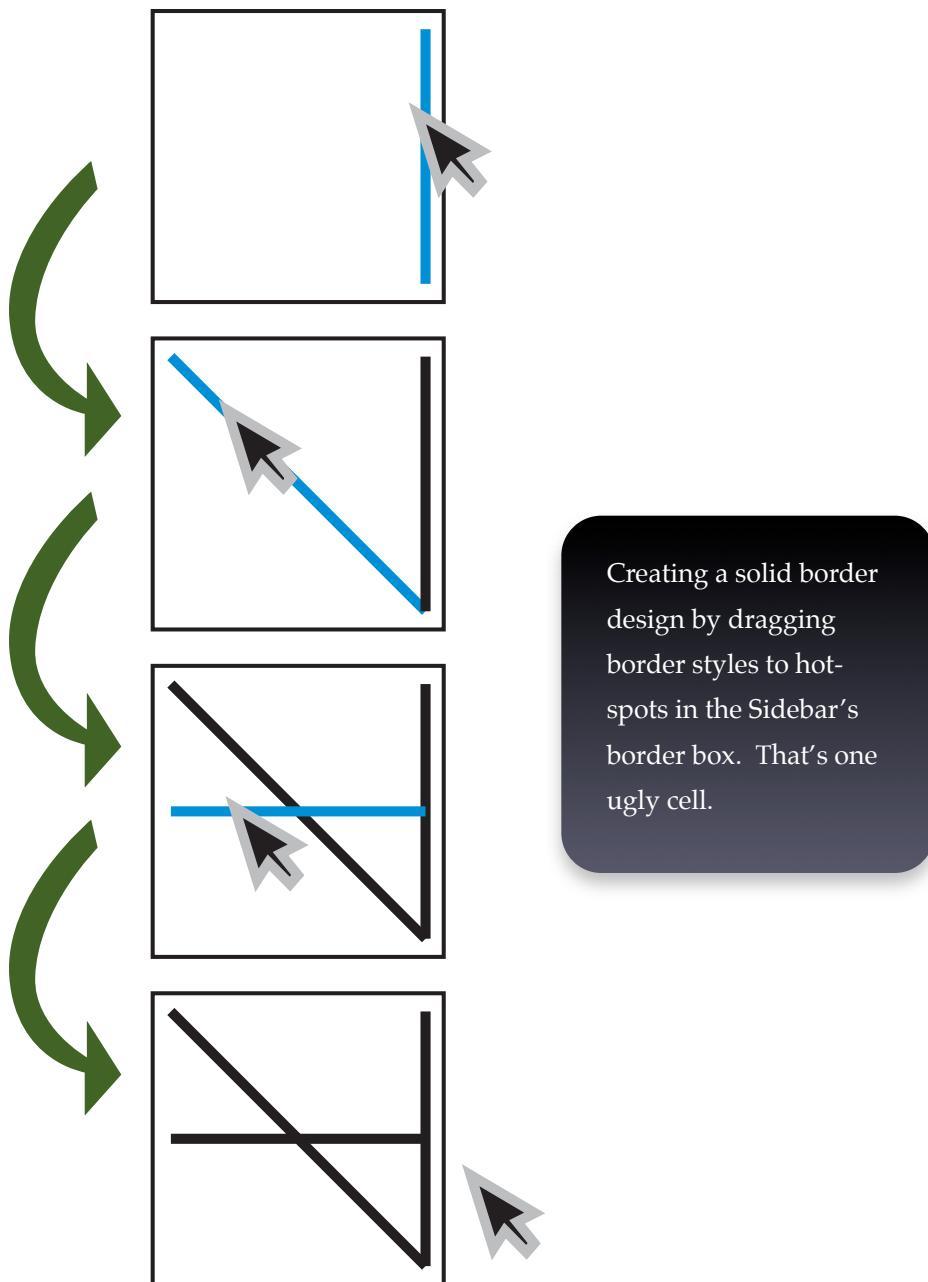


KSpread Border Mini-Tab Example

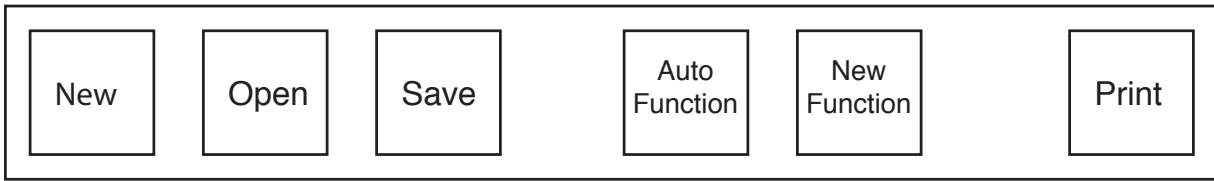


Creating Cell Borders

The user defines cell borders by clicking and dragging from the border style list to the border box in the Sidebar. A translucent border is drawn behind the cursor during the drag operation. Dragging over hotspots in the border box creates a translucent highlight behind the cursor to alert the user to a drop zone. Drop zones include the top and side edges, diagonals, and horizontal and vertical centers. Letting go of the cursor on a hotspot places the chosen border style. As the user places borders in the box, the borders appear in the selected cell in the document. To remove a border, the user drags a border from the border box anywhere outside of it and lets go, deleting it.



KSpread Toolbar Example



New Function is a drop-down menu of spreadsheet functions to click and insert into the current cell or drag to any cell. Functions include the standard spreadsheet functions for working with dates and times, math, conditionals, and more. A “Function Wizard” item could be at the bottom of the menu, which launches a dialog for easier construction of more complicated functions.

Auto Function, when clicked, automatically inserts a function into the current cell based on analysis of surrounding cells. In most cases, this would be used to auto-sum a row or column of number cells, as such a function does in Excel. Auto Function would also work with common series like months--automatically inserting April at the end of “January--February--March,” for instance, or automatically incrementing a series of dates by analyzing patterns of difference--inserting Jan.18 at the end of “Jan. 12--Jan. 14--Jan. 16.”

Review Mode Example

The review mode Sidebar might look as follows, with the Changes mini-tab selected:

