

Features in the New Annotations Design

Overview

As part of the 3.0 release of MobileSheetsPro, a significant number of changes have been made in regards to the creation and management of annotations. While the list of changes is extensive, a summary of those changes can be found below:

- There is no longer a separate editor. You still have to enter an annotations mode which displays a toolbar and other components for creating annotations, but the current display mode is kept active, there is no delay when switching modes and you can still access the audio player.
- Switching into the annotations mode is much faster. If using a smart stylus, MobileSheetsPro will switch to the annotations mode if the stylus hovers above the screen. You can enable an option to automatically exit the annotations mode if no input is received after a configured timeout.
- There are multiple options for accessing different tools depending on user preference (a toolbar or the new radial menu, which will be discussed later).
- Emphasis is put on the creation of new annotations, not on the editing of existing ones. In order to edit an existing annotation, you have to switch to the selection mode and then select it. This allows for much quicker and more seamless creation of annotations. It's easier to tap "undo" to eliminate mistakes than to edit.
- A huge number of stamps are now available, and custom user stamps can be added. A large amount of work went into ensuring that custom stamps are correctly transferred as needed when using library backups, msf files, and the library sync features. Stamps are also correctly managed when working with multiple libraries.
- The built-in stamps now properly scale to any size as they are font-based.
- New shapes and tools are available, including an arrow tool, staff placement tool, snipping tool for copying/pasting page content, crescendo/decrescendo tool, layer window, and favorites.
- A window is no longer required for entering text. The text is entered directly on the page using a transparent edit field. Unlike other tools, changes made to the text settings will modify the text annotation currently being edited. This is to facilitate more intuitive text entry.
- Annotation groups have been replaced by layers. You can now turn on and off individual layers. The touch actions to switch annotation groups will now cycle through layers.
- A settings dialog with built-in explanations for each option.
- Support for editing embedded PDF annotations
- Support for saving all annotations in PDFs instead of in the database. This is useful when it's necessary to share files with other users and you don't want to have to export changes through the sharing features.
- Support for switching the active tool temporarily while a stylus button is held (only works for certain styluses).
- Proper support for annotations in text/chord pro files. Annotations will now be properly placed and scaled when text/chord pro files are loaded on devices with different screen sizes.

- More intuitive tool sizes that don't change based on the scaled page size (i.e. rotating doesn't result in two annotations that visibly appear the same but have different sizes)
- Color support for all annotation types including stamps and a new color selection dialog.
- Support for variable width strokes with freeform annotations. Note that annotations created with this option are more complex, resulting in far more segments that have to be saved. This does not work well when saving annotations to PDFs as many small annotations have to be created instead of just one.
- A much better smoothing algorithm has been implemented that uses fewer resources and provides better results. This only works when variable width strokes are disabled.
- Multiple eraser modes are now supported so that users can pick the one they like best, including an option to delete whatever is dragged over (like using the eraser on a pencil), an option to delete everything in a selected box (matches the old eraser behavior) and a tap mode that results in entire annotations being deleted if you touch them which is useful to quickly delete lots of things but doesn't let you delete parts of annotations like lines and freeform drawings.

New UI Components

The Radial Menu

One mode of accessing tools and modifying features is through a new radial menu which can be dragged around, expanded and collapsed as needed. Tap the center of the radial menu to collapse or expand it. This tool is reminiscent of similar menus in applications like OneNote and Drawboard PDF. It works extremely well with a stylus and requires less arm movement compared to the toolbar at the top of the screen as you can position the radial menu around the area where annotations will be created. The radial menu can be seen below:

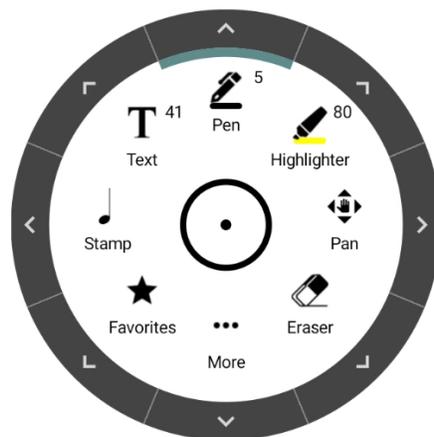


Figure 1 - The top level radial menu options

Tapping on a tool will select that tool and will allow creation of annotations of that type. Tapping on the arrows on the border will change settings for that tool as seen below:

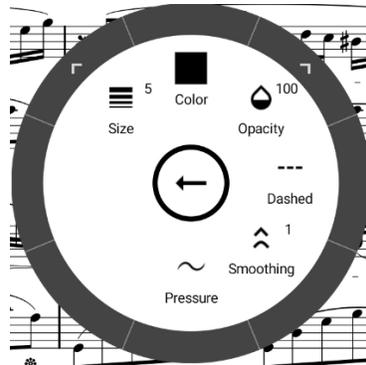


Figure 2 - Settings for the pen tool

Some fields are not tied to a particular tool (the "Favorites" entry or "More"). When "Favorites" is tapped, it will display the favorites dropdown. When "More" is tapped, access is granted to additional tools and options. When numeric tool settings are tapped, such as Size or Opacity, the radial menu will change to provide a way to change the value, as seen below:

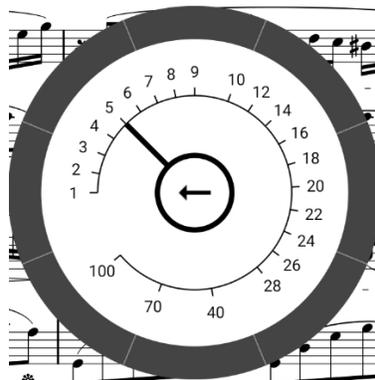


Figure 3- Numeric entry in the radial menu

This provides an accurate and fast way to pick values. More common values are provided a higher granularity (i.e. 1 through 10 in figure 3), whereas less common values will be grouped in sections that provide less accuracy (i.e. 28 through 100 in figure 3).

The Toolbar

Some users may prefer using the standard toolbar instead of the radial menu, so all the same functionality can be accessed through the toolbar at the top of the screen. Through the settings dialog, the radial menu can be disabled entirely if needed. Toolbar items are collapsed into an overflow menu

(three vertical dots) when they can't fit on the screen. When a tool is tapped, it is selected as the active tool. If the tool is tapped again, settings are shown as seen in the screenshot below:



Figure 4 - Tool settings through the toolbar

One nice advantage of the settings dropdowns through the toolbar is that a preview is provided to visualize the effects of changing the settings. When changing several settings for a tool, the dropdown is also convenient as you can access them all in one spot which may be faster than using the radial menu. Tapping outside the dropdown will dismiss it.

Some users may prefer not to have the toolbar shown, or they may want to temporarily hide it to access the page underneath. This can be done by tapping the  icon. The toolbar will then be collapsed to just two small icons:  . This left icon provides a fast way to exit the annotations mode and the right icon will show the full toolbar again. These icons cannot be disabled or hidden.

The Favorites Window

The fastest way to switch between commonly used settings for tools is through the favorites window.

This window can be shown by tapping the  icon either in the radial menu or toolbar. The favorites window will be displayed as shown in the screenshot below:

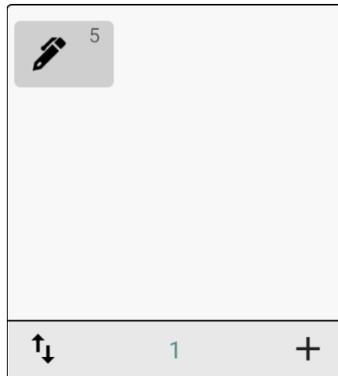


Figure 5 - The Favorites Window

To add a new favorite, configure the current tool however you would like, and then tap the  icon. This will then add a new entry to the window based on the current tool. For example, if the text tool was configured with a size of 41, then the  icon was clicked, the following entry would be added in the favorites window:

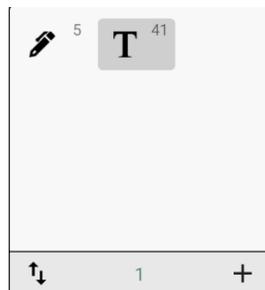


Figure 6 - Favorite settings for the text tool

Tapping an entry in the list will switch to that tool type and will update all of the settings to match that favorite. To update the settings for a given favorite, long press it and then tap "Update to current settings" in the context menu. You can also delete entries using the "Delete" option in the context menu. To reorder entries, tap the  icon, which will also display an X next to each entry as seen below:

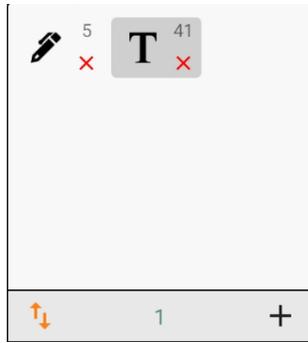


Figure 7 - Reordering or removing favorites

To remove an entry, tap the red X, and then tap it again to confirm. To reorder, just drag and drop the favorite into the new position. Tap the  icon again to disable this reorder mode.

The Layers Window

The layers window provides an easy way to see a list of all annotations across all layers on a given page.

The layers window can be accessed by tapping the  icon, which will display the window shown below:



Figure 8 - The Layers Window

The checkboxes for each annotation in the list provides a fast mechanism to select annotations. The annotation can be reordered by tapping the down or up arrows at the bottom of the window or deleted

by tapping the trash can icon. The icons at the very bottom left provide an easy mechanism to select or deselect all annotations. Tapping the select all icon only impacts the current layer on the current page, while holding it selects the same layer on all pages. The deselect all icon deselects all icons across all layers. To add a new layer on a given page, tap the + icon and provide a name for the layer. To rename a layer, tap the pencil icon, and to change the visibility, tap the eye icon.

The Command Bar

The command bar provides a fast way to access various features in a small floating bar. The command bar can be displayed by tapping the  icon, which will display the following:

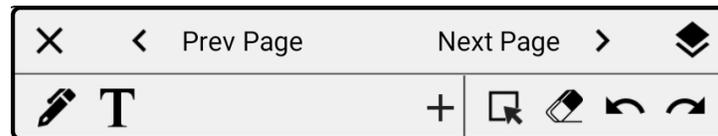


Figure 9 - The Command Bar

The command bar supports changing pages, an icon to display the layers window, fast access to the selection tool, the eraser, and undo/redo, and provides a horizontal list for all favorite tool settings. New favorites can be quickly added by tapping the + icon. To update the settings for a given favorite, long press it and select the update option from the context menu. Likewise, to remove a favorite, access the "Delete" option in the context menu. The command bar can be positioned anywhere on the screen by dragging it.

The Stamps Window

If the stamp tool is tapped twice in the, the following window will be displayed:



Figure 10 - The Stamp Dropdown Window

While similar, if the stamp type field is tapped in the radial menu, the following is displayed:



Figure 11 - The stamp window when accessed through the radial menu

One important distinction here is that the stamp window when accessed through the radial menu will stay up on the screen. The dropdown through the toolbar is dismissed if you tap away. If you need to create a lot of stamp annotations, you may find it easier to leave the window up after accessing it through the radial menu. Additionally, the stamp list can be collapsed when displayed through the radial menu by tapping the icon  as seen in the screenshot below:



Figure 12 - The stamp window collapsed to a list

This provides a way to quickly access stamps without it taking up too much screen space. At the top of the stamps window, you can see a list of categories such as Standard, Jazz, Chords, Percussion and User. Tapping a category will change the list of stamps shown. In the list mode, you must scroll the category list to select others.

The list of stamps is very configurable. To reorder stamps (to put commonly accessed ones earlier in the list), just long press them and drag to the new position. You can drag between pages of stamps by just positioning the stamp at the edge of the window. To add a built-in stamp (one found in the first four categories), tap the stamp to select it, and then tap it again to access the popup menu. In this menu, you will see two options: "Add to user list" and "Reset all lists". Adding a stamp to the user list lets you set up a list of your favorite stamps so that you don't have to dig through multiple categories. Resetting all lists will reset all stamp positions, and you can optionally clear the user list as well. If a stamp in the user list is tapped twice, the menu instead has options to "Remove from user list" and "View file information".

To add a custom stamp, go to the user category and tap the + icon at the bottom right. You can add a stamp from local storage or the cloud. Standard image types are supported along with .svg files for vector graphics. Use .svg files when possible as they will scale to any size without degradation. It should be noted that all stamps will be copied into a "stamps" folder under the storage location. This is necessary to properly handle library backups, synchronization and msf files.

Color Selection

If the color for a tool is tapped to change it, the following dialog will be displayed:



Figure 13 - The color selection dialog

This new dialog is used throughout MobileSheetsPro for color selection. If the current setting supports having no color (such as with fills or custom stamps), then a "NO COLOR" option will be present at the bottom right corner of the dialog. After selecting a color in the top section, gradients of that color will be shown in the bottom section. In some places in MobileSheetsPro, opacity can also be selected on this dialog. If the "CUSTOM" option is tapped at the bottom left, a more advanced color selection dialog will be shown that provides more control over the exact color used. Up to 3 custom colors will be saved for quick access. A separate list of 3 colors is saved for fill colors.

Undo/Redo bar

In order to provide fast access to undo/redo without having to use the toolbar at the top of the screen, a floating toolbar is present at the bottom left with icons for undo/redo and page turning, as shown below:



Figure 14 - The undo/redo bar

Tapping the left/right arrows will change the current page. This provides a mechanism to easily change pages without having to use the command bar, a pedal or exit the annotations editor. It should be noted

that this bar is hidden if the command bar is shown, as there is no need for both to be shown at once. This toolbar cannot otherwise be hidden or disabled.

New Tools and Features

Selecting and editing existing annotations

If one or more annotations is selected either using the selection tool or the layers window, a toolbar will pop up below the selection as shown below:

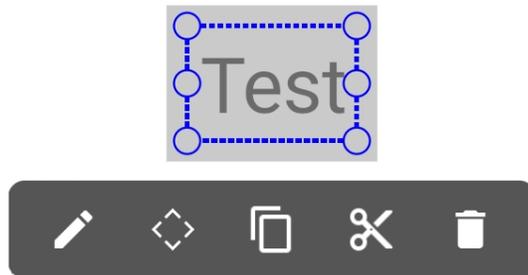


Figure 15 - Actions shown for selected annotations

Tapping on the  icon will pop up a window that can be used to edit the properties of the selected annotations. Different settings will be shown depending on the type of annotations that are currently selected. If only text annotations are selected, the following edit window will be shown:

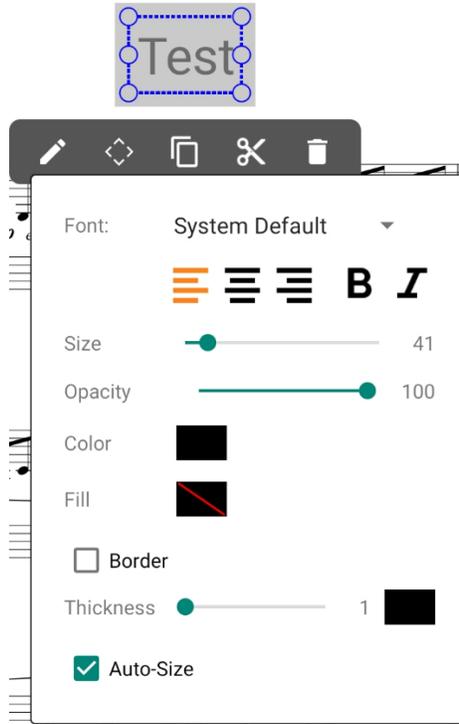


Figure 16 - Edit window for text annotations

When an annotation such as a freeform drawing is selected fewer options will be available as seen below:

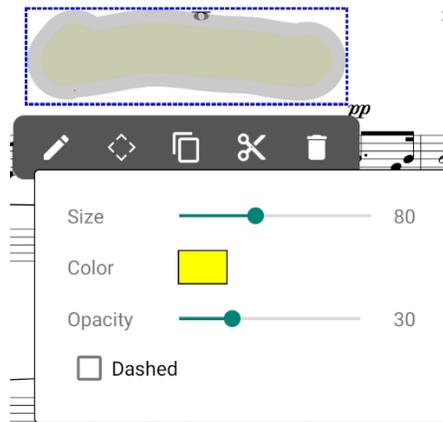


Figure 17 - Settings for a freeform highlight annotation

If the  icon is tapped, the nudge window will be shown which can be used to reposition the annotation. The nudge window can be seen below:

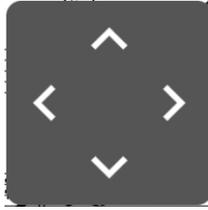


Figure 18 - The Nudge Window

This window will be familiar to users as it was available as a floating window in the previous annotations design. Pressing and holding on an arrow will move the annotation in the direction of that arrow. This can be used to position annotations with a high level of precision.

If the  icon is tapped, it will copy all selected annotations. You can then long press on a page when using the selection tool, and a popup will appear to paste the selected annotations. If the  icon is tapped, it will cut the selected annotations, which copies the annotations and then removes them from the page. Lastly, if  is tapped, it will delete all selected annotations.

The Crescendo/Decrescendo Tools

To create a crescendo or decrescendo annotation, first tap the  or  icon in either the overflow menu of the toolbar or the radial menu. You can change the thickness or height of the crescendo/decrescendo in the settings if needed. A single tap on the page will create the crescendo or decrescendo with the default width. If you first press and hold your finger or stylus for a few seconds and then drag, you can control the width of the crescendo/decrescendo.

The Piano Staff Tool

To create a piano staff annotation, first tap on the  icon in either the overflow menu of the toolbar or the radial menu. Next, tap and drag the start of the piano staff on the score. Once the staff is positioned correctly, stop moving your finger for a few seconds to lock in the starting position and then drag horizontally to specify the number of measures of the staff. Dragging up or down will resize the annotation. After dragging to the appropriate width, you can release your finger to create the annotation as-is, or you can hold for 2 seconds to add an end to the staff. Holding for 3 seconds will create a double-line at the end. These can be seen in the screenshots below:

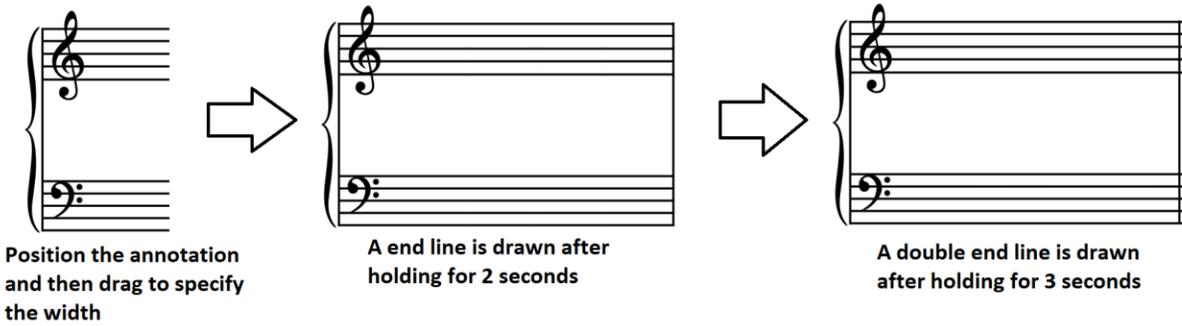


Figure 19 - Creating a piano staff annotation

The Snipping Tool

The snipping tool provides a mechanism to take part of a PDF page and paste that in other parts of the PDF. You can also "cut" that part of the PDF to have a white box inserted on top of it, effectively

removing it from the page. To enable the snipping tool, tap the  icon in the toolbar overflow menu or in the radial menu. You can then drag a square on the part of the page you want to copy as shown below:



Figure 20 - Using the snipping tool

Tapping the  icon will copy the selected portion of the page and switch to the selection tool. You can then long press on any page and paste the content that was copied. In order to reposition the content that is pasted, you need to enable the option to edit embedded PDF annotations in the settings. If the  is instead tapped, it will copy the selected portion of the page, and a white filled rectangle will be

created on top of the selected region, making it appear as if it has been deleted. Annotations can then be drawn on top of this region. It's not possible to actually remove part of a page without rebuilding the PDF page entirely, so this is a workaround to achieve the same goal.

New Settings

Grid Settings

The same grid settings are available in the new annotations mode that were available in the old annotations editor. If the grid settings are accessed through the toolbar overflow menu or the radial menu, you can enable snapping to the grid, enable the grid visibility, or change the grid cell size.

Settings Window

The settings window can be accessed by tapping the "Settings" option in the overflow menu or by tapping the settings icon in the radial menu. The following window will be shown:

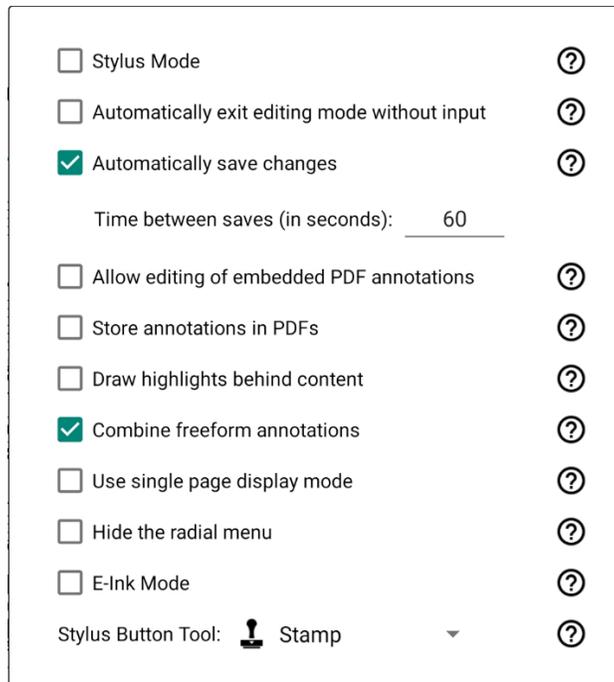


Figure 21 – The Settings Window

While details about each setting can be found by tapping the '?' circle on the right side, each setting will be briefly explained below with important notes for some of the more advanced options:

- Stylus Mode – Only smart stylus input is accepted for creating annotations. Finger input can be used to scroll pages or zoom. Same as stylus mode in the old design.
- Automatically exit editing mode without input – The annotations editor will automatically exit after no input has been received for a configured timeout. This can be great when using a stylus to create annotations, as you can hover the stylus to start annotating, create the annotations, put the stylus down and MobileSheetsPro will exit the annotations editor for you after the timeout.
- Automatically save changes – Triggers MobileSheetsPro to automatically save changes after the configured timeout (changes are normally saved when changing pages or exiting the annotations mode). This ensures that if the tablet dies or the app is killed unexpectedly, all of the changes are not lost.
- Allow editing of embedded PDF annotations – Allows existing PDF annotations to be edited. Not all types of annotations can be edited. Certain annotations, such as stamp annotations, can only be moved or deleted.
- Store annotations in PDFs – Saves annotations to the PDF instead of in the MobileSheetsPro database. Have no effect when dealing with file types other than PDF. Note that this method of saving changes is slower especially when using an SD card for the storage location.
- Draw highlights behind content – Uses advanced drawing techniques to draw highlights behind page content instead of on top of the page. This option is disabled and hidden if the "Store annotations in PDFs" setting is enabled. That is because highlight annotations cannot be stored in the PDF behind the page content (the PDF spec doesn't support this without rebuilding the entire page).
- Combine freeform annotations – Normally, when drawing freeform annotations, each time the finger or stylus is lifted and then a new drawing is made, each of these drawings is merged together into one annotation. This is more efficient and makes it easier to manage all of the separate segments. If this setting is disabled, each time the finger or stylus is lifted, a separate annotation will be created.
- Use single page display mode – Forces the single page display mode to be used when in the annotations mode. Some users may prefer to use the single page display mode instead of the two page display mode so that the page is enlarged more.
- Hide the radial menu – Hides the radial menu. The radial menu can also be collapsed by tapping the center which leaves a small circle on the screen, so this may be preferred versus enabling/disabling this setting frequently.
- E-Ink Mode – Slows down the refresh rate which helps performance while annotating on an e-ink device. For most e-ink devices, the dedicated e-ink version of MobileSheetsPro which is sold through the ZuberSoft FastSpring store is a better option.
- Stylus Button Tool – Determines what tool is activated when the stylus side button is pressed. For Bluetooth styluses, the button press will be registered without the stylus needing to touch the screen. With other smart styluses, the tool will only change once the stylus touches the screen.