

Calico Manual

<http://sdcl.ics.uci.edu/research/calico/>

Written by Nick Mangano (June 12, 2011)

Introduction

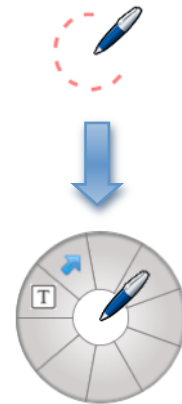
This manual explains the functionality of Calico. For information on how to install and setup Calico, please see the installation manual.

Basic Interaction

Drawing – The basic interaction of Calico is built around the ability to draw freely. When the user enters Calico, they can begin drawing on the canvas. Tapping on any of the icons on the menu bar will trigger it, and, while in the grid, tapping on a cell will load a particular canvas.

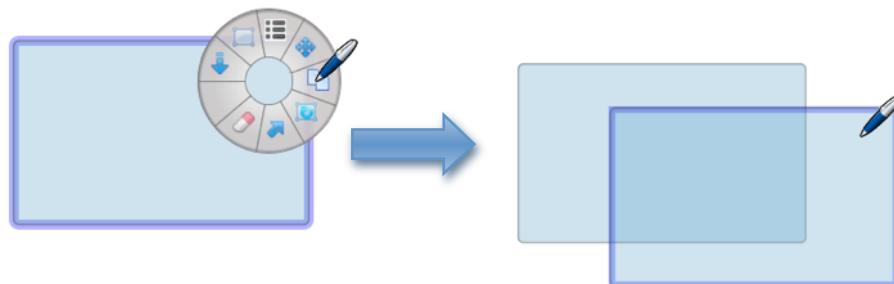
A warning for interactive whiteboard users drawing with their fingers: Interactive whiteboards typically have different gestures for one, two, or more fingers. If the user's hand rests on the interactive whiteboard while they are drawing, it will interfere with Calico.

Press-and-hold / Right-click – Users can select items or bring up a context menu using either right-clicking (which is typically available as a button on the barrel of the tablet stylus), or by performing the press-and-hold action. When the user performs the press-and-hold action, a red circle will appear around the pressed area (like in the figure to the right), and the context menu will appear once the circle is completed. Pressing right-click will open the context menu immediately. Both press-and-hold and right-click will perform the same action, and so the user can use the one that they find the most comfortable.



Note to users with a capacitive touch screen or interactive whiteboard: When using press-and-hold, the user should be careful to not significantly move their finger while pressing down, or the press-and-hold operation will fail (and leave behind extra strokes).

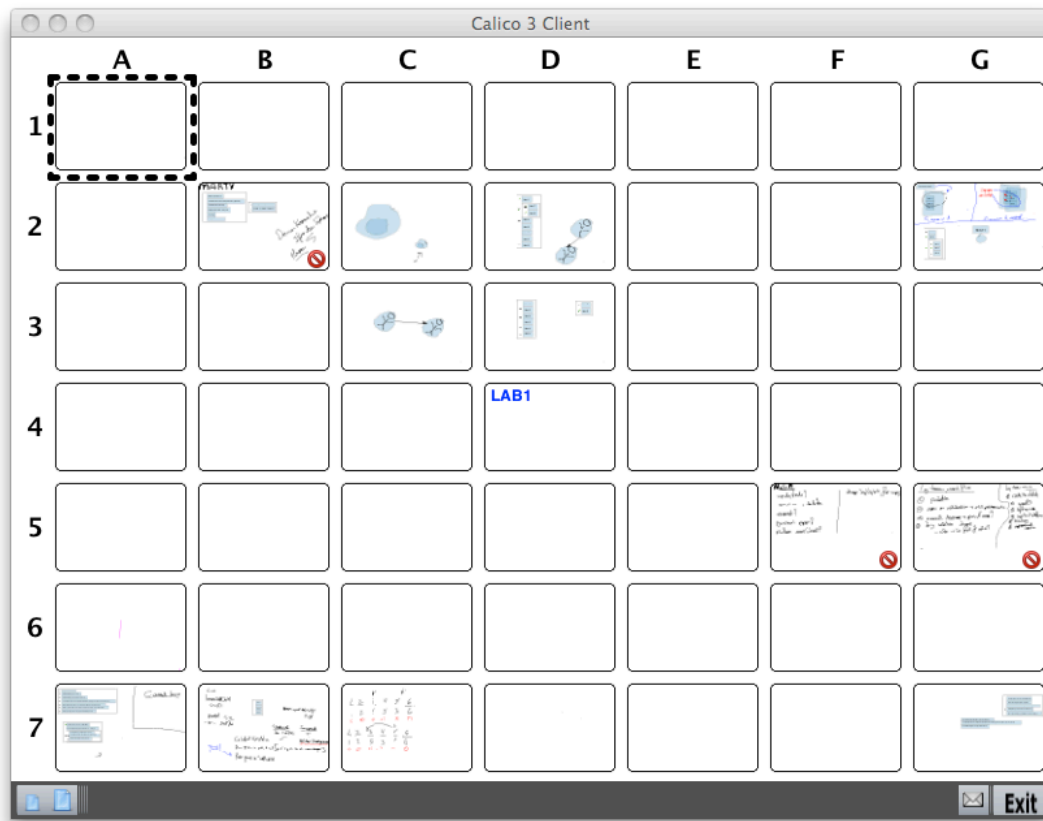
Press-and-drag – For some context menu actions, such as when moving or copying a scrap, the user will perform the press-and-drag operation. For these actions, the user will first bring up the menu for the object that they are editing, and then drag the pen (or finger) without lifting it.



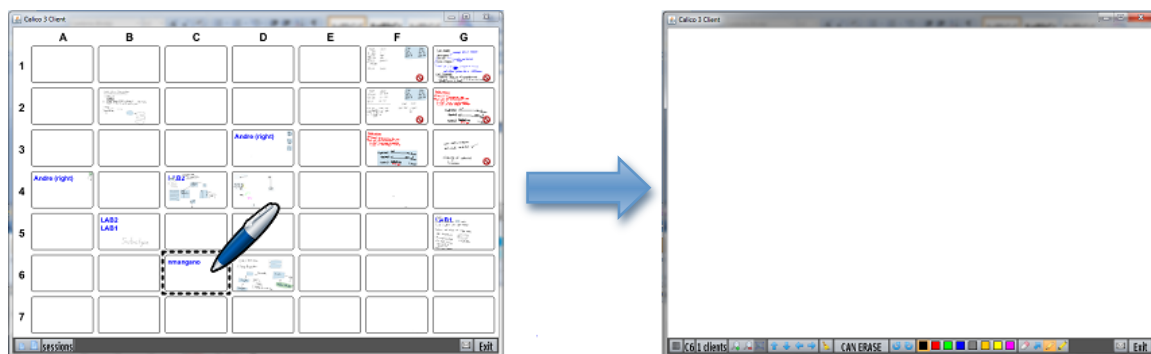
In the above example, the user pressed the copy icon in the context menu, and immediately dragged the pen to the desired location of the copied item.

Grid Interface

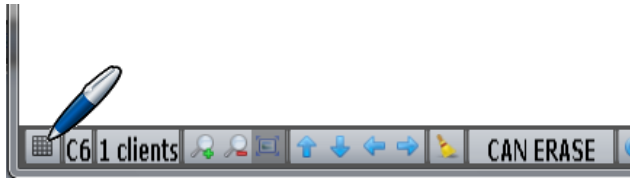
Calico operates with a grid of canvases, which you can see when you start Calico.



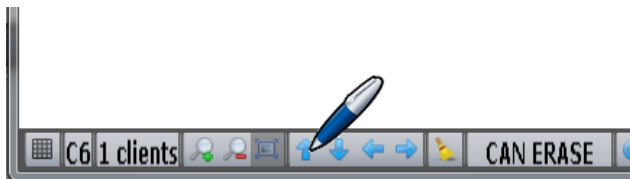
Clicking on a canvas expands it to full screen, which you can then draw on.



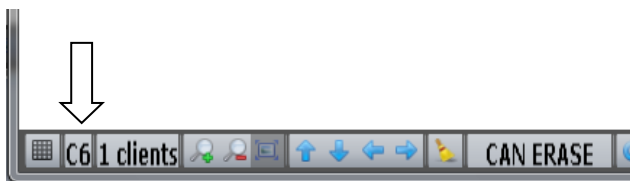
With the grid icon, you can return to the grid of canvases, and choose to enter another canvas.



You can also move left/right/up/down to directly switch canvas.



As an aide, the grid cell is listed in the menu bar.



The buttons on the grid cell context menu are the following:

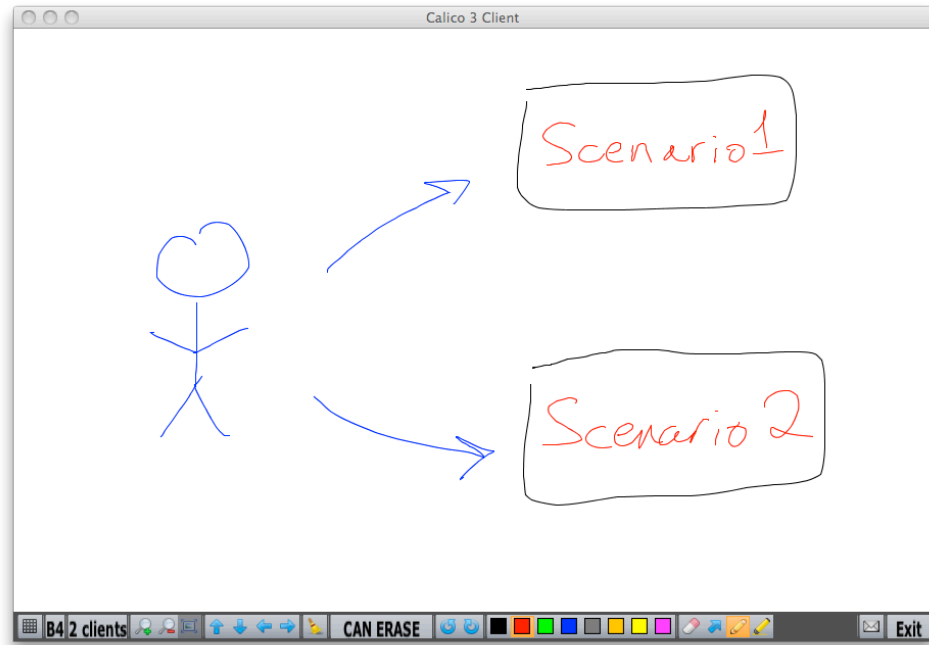
- Do not erase – flags a particular canvas as “do not erase”
- Move canvas* – moves a canvas to another location
- Copy canvas* – copies a canvas to another location
- Erase canvas – erases the contents of a canvas (canvas can be retrieved by entering that canvas and pressing undo)



** signifies that this button is a press-and-drag action*

Canvas Interface

In the canvas, you can draw anything you like



You can change color with these icons



You can undo/redo



There are two options to erase drawings on the canvas:

(1) *Eraser* - press the erase icon, then move the pen across the drawings. Moving the pen in this fashion deletes any stroke or arrow that it touches.



(2) *Canvas eraser* – erases all content from the canvas, leaving it empty.



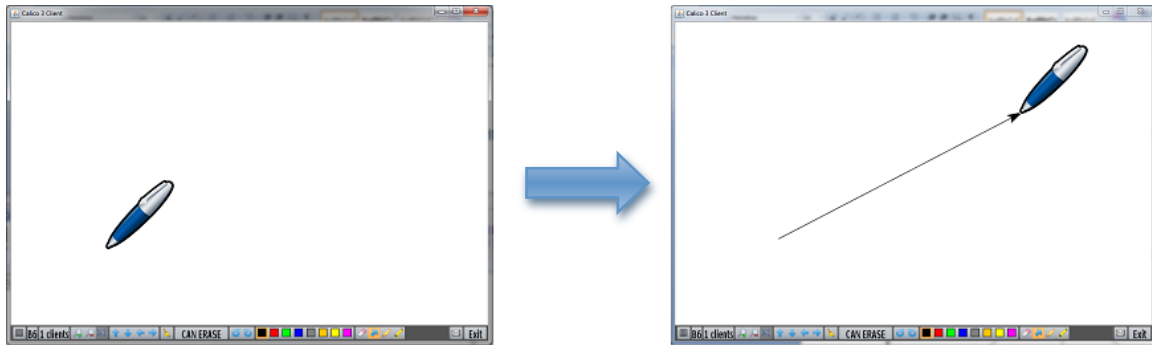
Note: to return to drawing, use the "draw" icon.



Arrows can be drawn by hand using the context menu, but there is also an arrow mode.



Here is how it works: Press down on the canvas with the pen, and then drag the pen to desired location of the arrow's head.

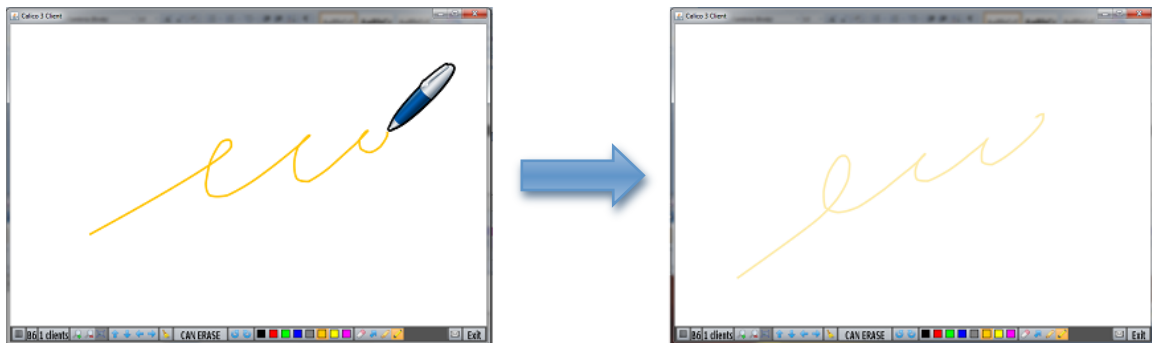


Note: to return to drawing, use the "draw" icon.

Finally, there's a highlighter:



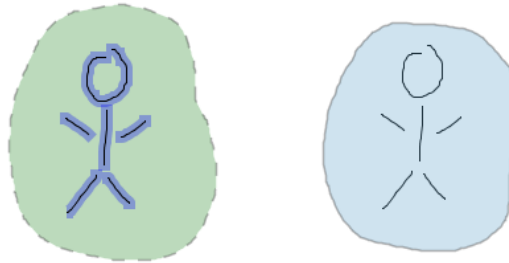
Here is how it works: Any scribbles made on the canvas will be thicker, and will also be visible across the network. After three seconds, the scribbles will then fade away.



(Note: to return to drawing, use the "draw" icon)

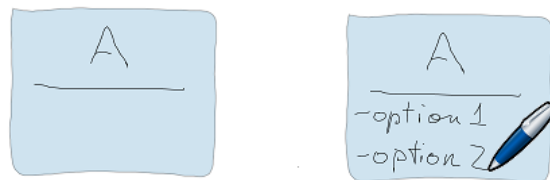
Scraps

Two kinds of scraps are available: *selection* and *permanent*



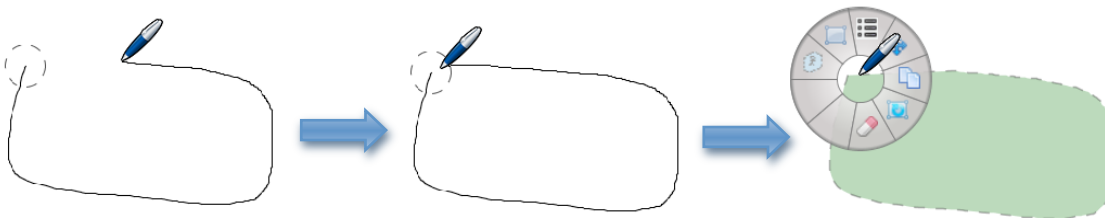
Selection (left) allows an operation on a group of things and then disappears; permanent (right) is a permanent scrap that has presence onto canvas can be interacted with.

You can add to a permanent scraps simply by drawing inside of them. Strokes are automatically grouped by a scrap.

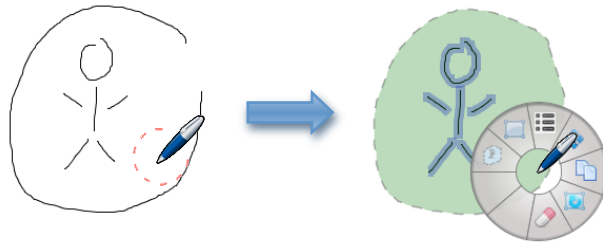


To create a selection scrap, you can either encircle an area, or press and hold inside a single stroke, which will trigger the green selection area to appear with a menu

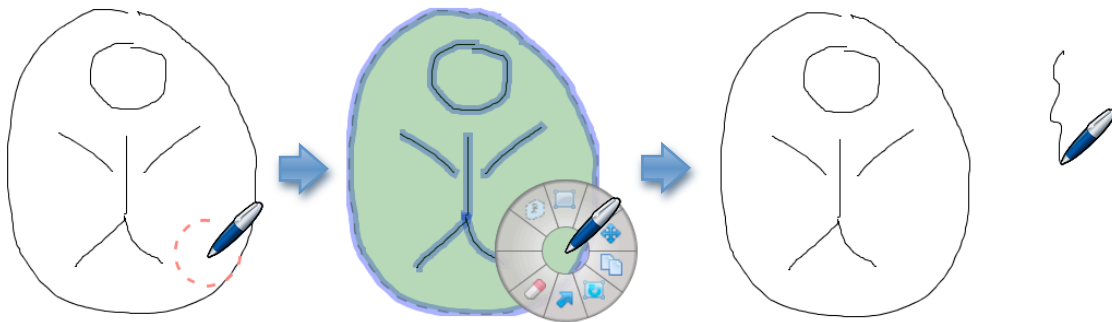
Example A:



Example B:

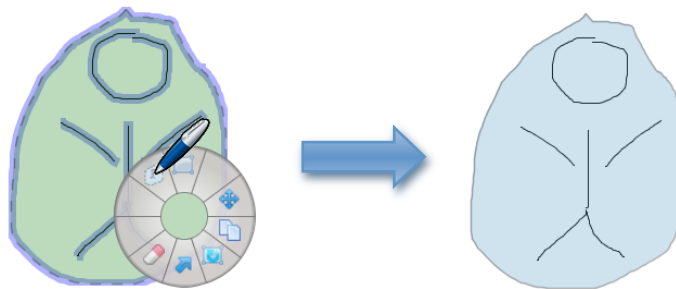


Selection scraps will disappear on the first action after they are created (which includes menu actions)

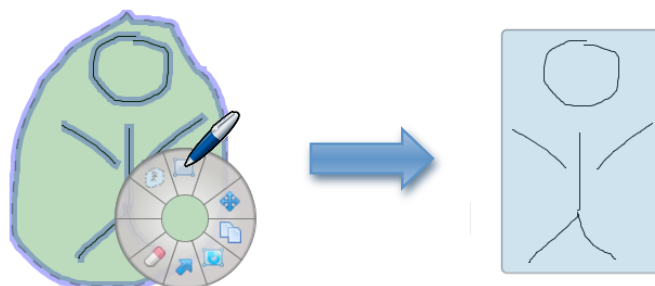


To create a permanent scrap, you choose one of the two upper-left most menu items from the selection scrap menu

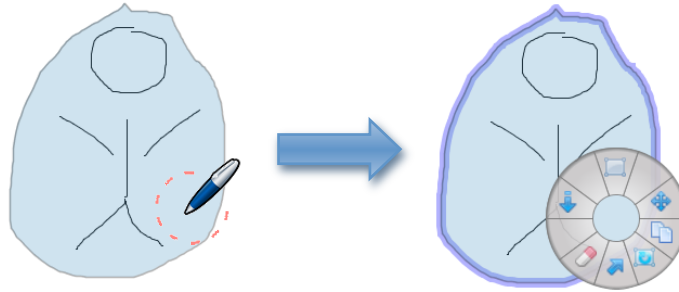
(1) the first creates the permanent scrap in the shape it is drawn



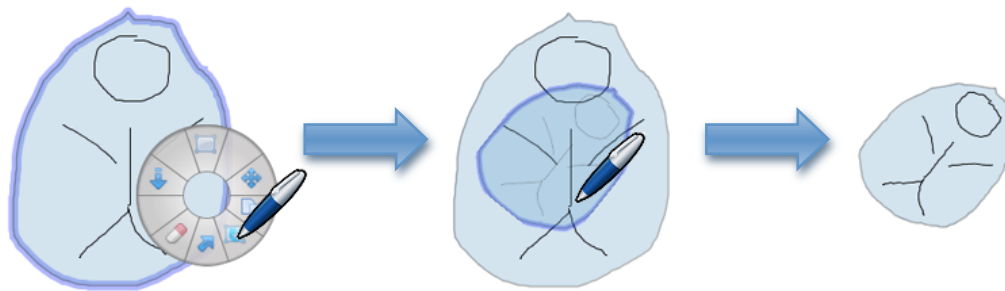
(2) the second creates a shrink-wrapped box around the contents of the selection



Note that after creation of permanent scrap, the menu will be gone, but you can bring it back again by using press-and-hold inside the scrap, or right click



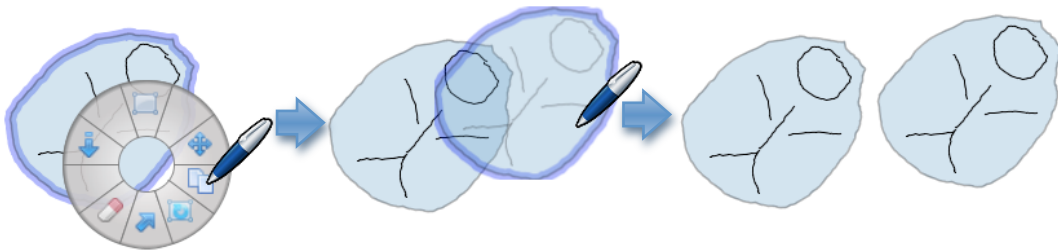
Both selection scraps and permanent scraps can be **resized & rotated** (*this is a press-and-drag operation*),



...moved (*this is a press-and-drag operation*),



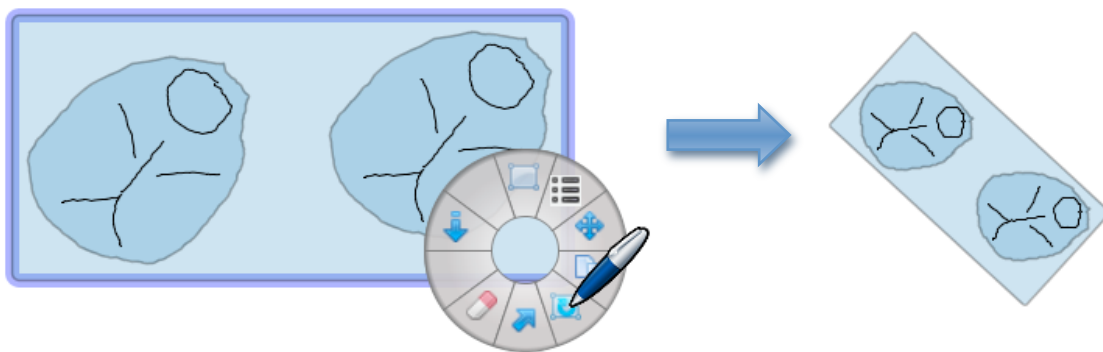
...duplicated (this is a press-and-drag operation),



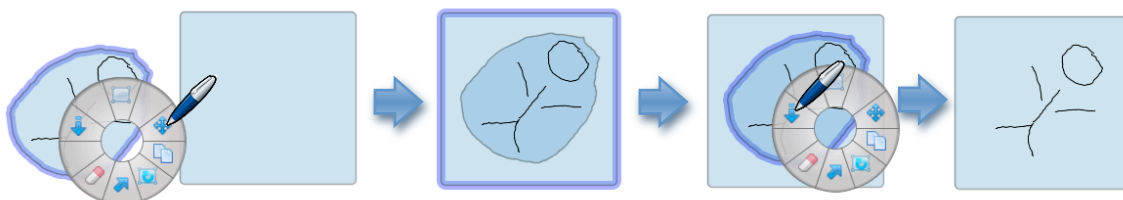
...and erased



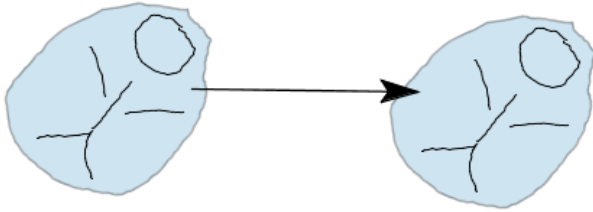
Note that by moving, it becomes possible to **group scraps**, scraps that are fully contained by other scraps become part of that scrap and move along with the bottom scrap, or resize with it, or duplicate with it, etc.



Finally, content from a scrap can be **dropped onto another scrap** (or multiple scraps, or the canvas) behind it

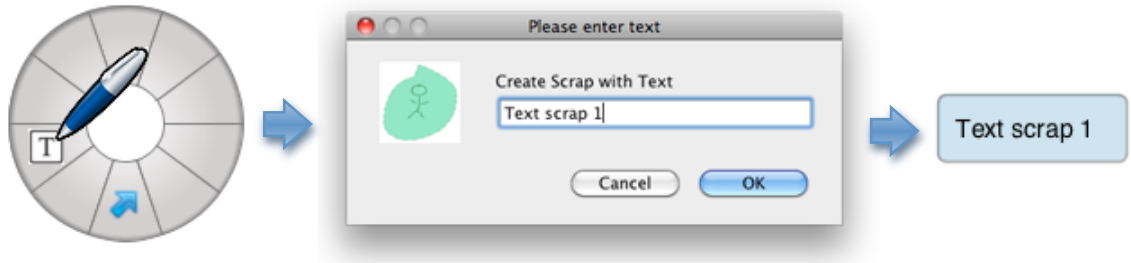


Note that arrows created from scraps anchor on the scrap, with the anchor moving along with the scrap when it is moved

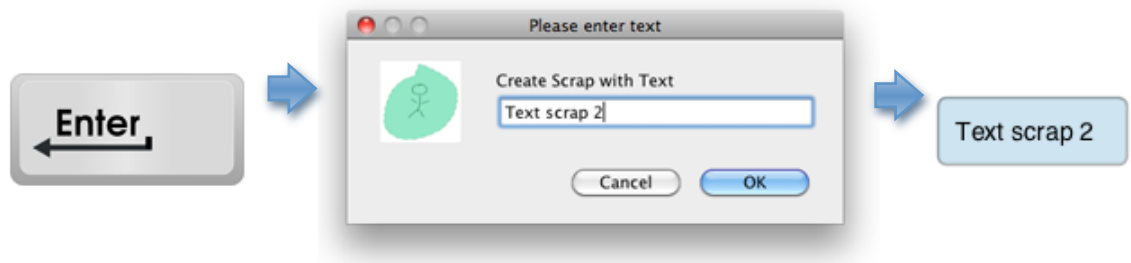


Scraps can be created from keyboard input as well.

- 1) **Text scraps** can be created using the context menu from the canvas



- 2) **Text scraps** can also be created by pressing the Enter key on the keyboard

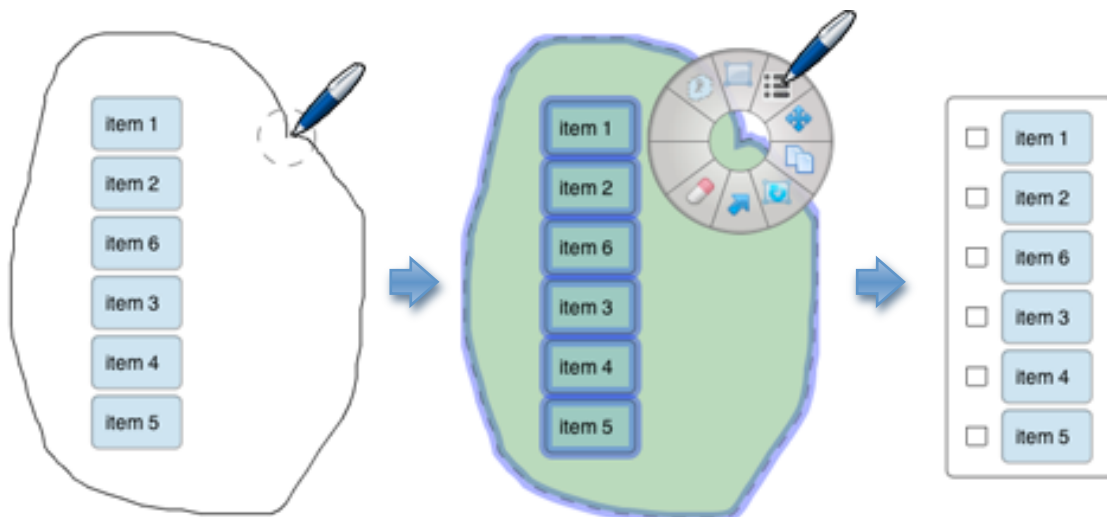


Lists

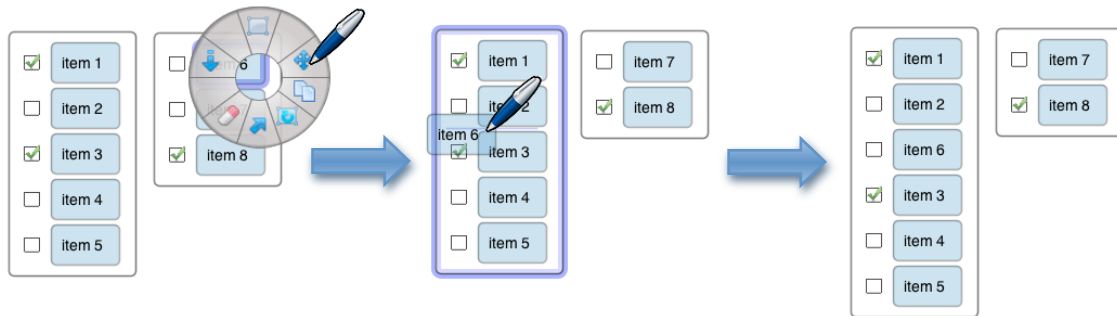
These are a special kind of scrap that organizes other scraps into a vertical list with check marks



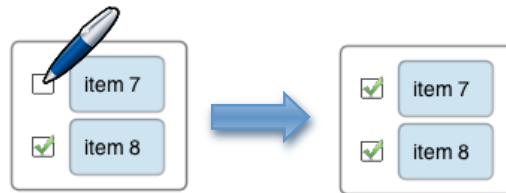
Lists can be created by encircling the items you wish to place in a list (making sure to land in the hit-target), and then selecting the list item from the context menu



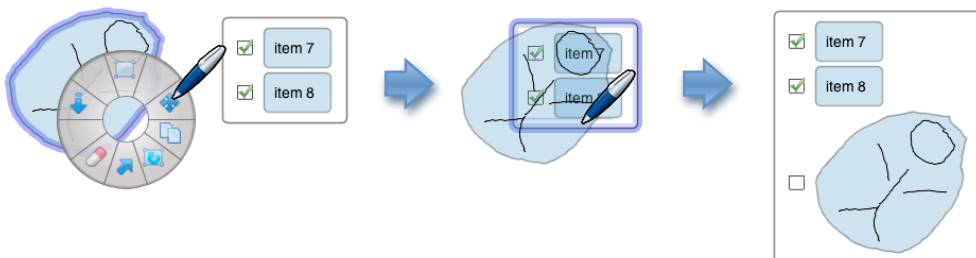
Scraps can be **dragged on and off** of lists, which will become highlighted to indicate where the moved scrap will appear in the list



Check marks can be marked and unmarked to signal completion



Any scrap, of any shape, can be dragged onto a list



This includes other lists as well, since those are also considered scraps

- ☒ item 1
 - ☐ item 7
 - ☒ item 8
- ☐ item 2
- ☐ item 6
- ☒ item 3
- ☐ item 4
- ☐ item 5

When lists are nested in one another, the checkbox in the outer-list will automatically be checked (or unchecked) depending on the checked boxes in the inner-list

☒ item 1

- ☐ item 7
- ☒ item 8

☐ item 2

☐ item 6

☒ item 3

☐ item 4

☐ item 5

→

☒ item 1

- ☒ item 7
- ☒ item 8

☐ item 2

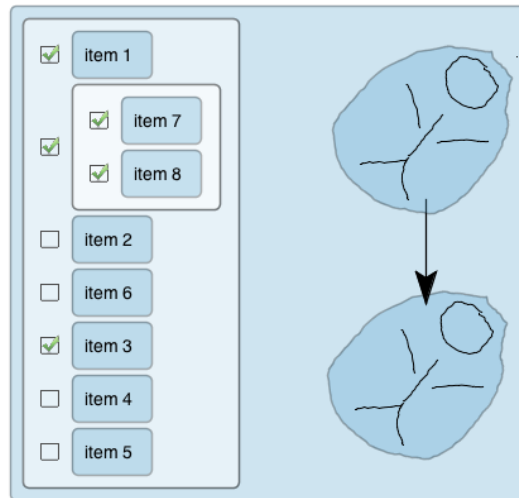
☐ item 6

☒ item 3

☐ item 4

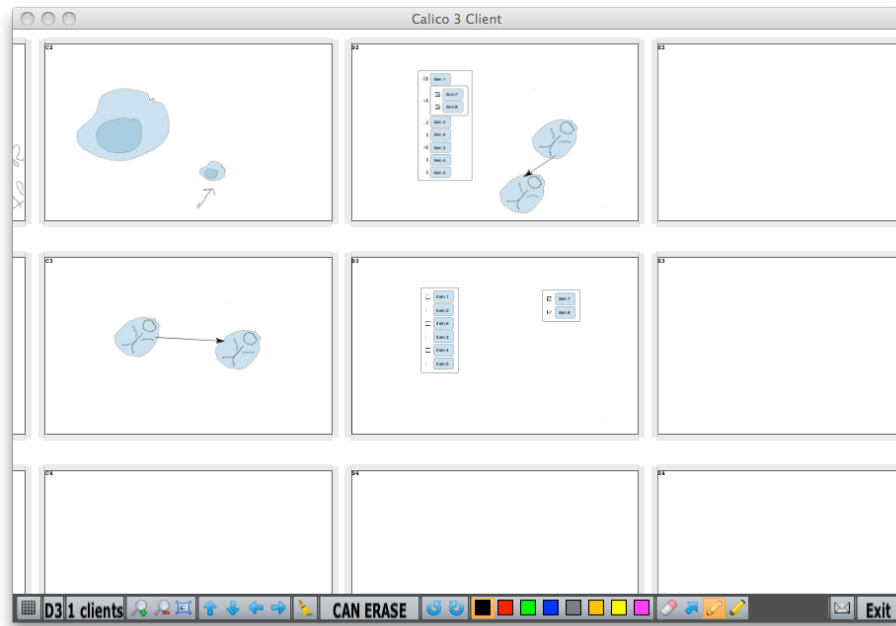
☐ item 5

Note that lists also can be part of other scraps by the same token



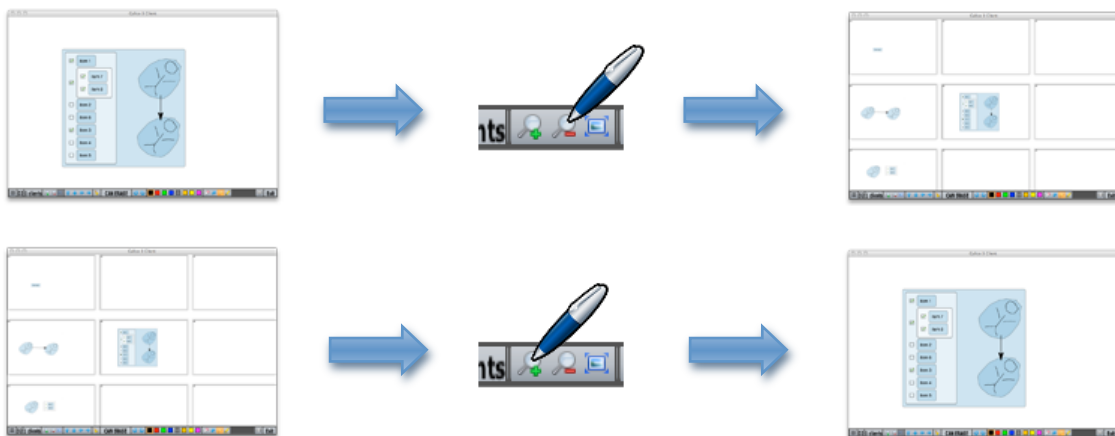
Viewport View

To see multiple canvases but not the entire grid, you can use the viewport view.



In the viewport, you can do everything you normally can in a canvas, including drawing and manipulating scraps.

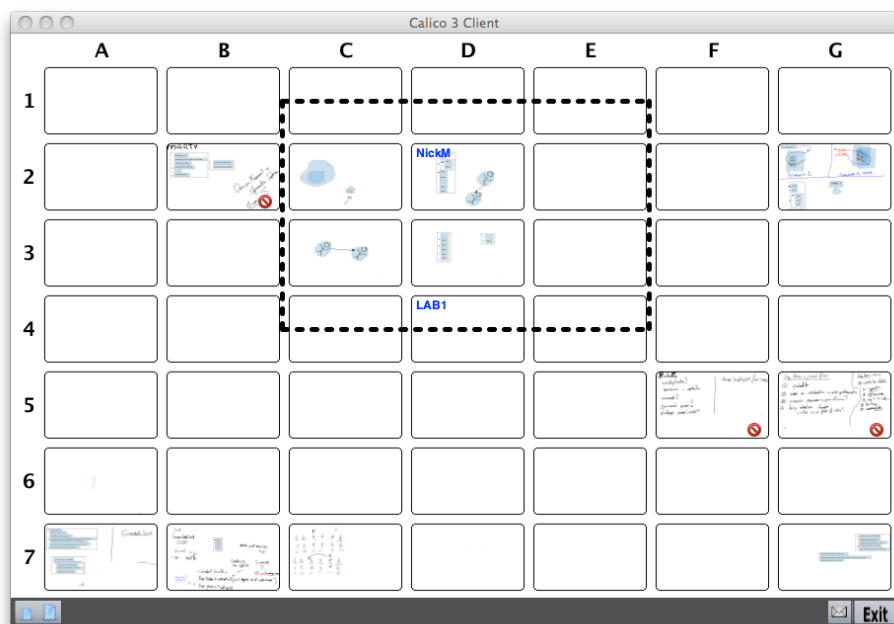
Press the increase view / decrease view buttons on the bottom menu bar to zoom in or out to the viewport. Zooming out from the canvas will enter the viewport, and zooming sufficiently out will enter the grid view. Zooming back in will return to the canvas view.



Pressing the zoom-to-canvas icon will zoom the view to the center most canvas on the viewport.



While in the grid view, the dotted rectangular box shows the perspective that the user will see when they enter the viewport.

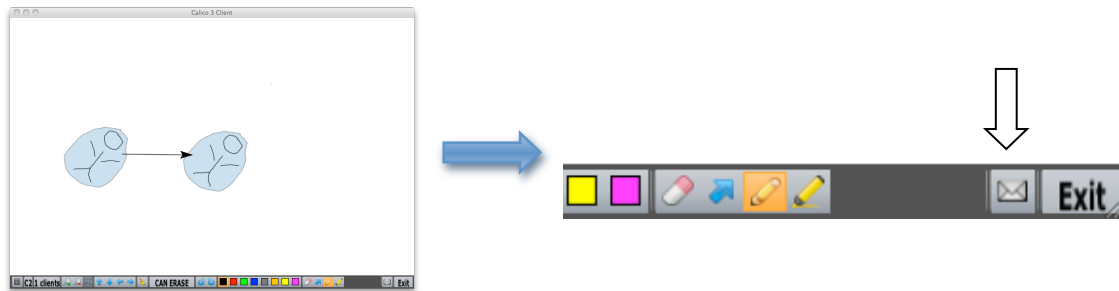


Pressing the decrease / increase buttons on the bottom menu bar of the grid will resize the viewport visibility box in the grid view.

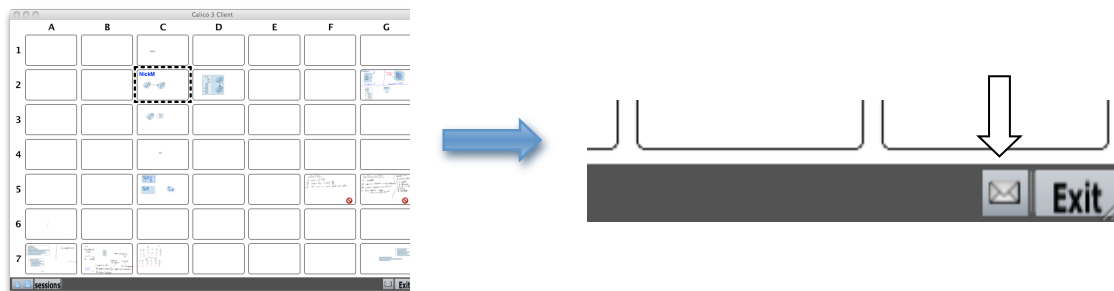


Email

You can e-mail an individual canvas using the envelope icon, which will be sent as a PNG image.



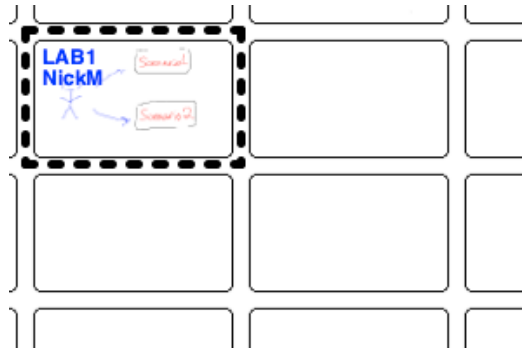
You can also e-mail all non-empty canvases using the envelope icon in the grid view, which will send a PDF file.



User Presence

The users that are currently connected to the server is displayed both in both the grid view and while drawing in the canvas.

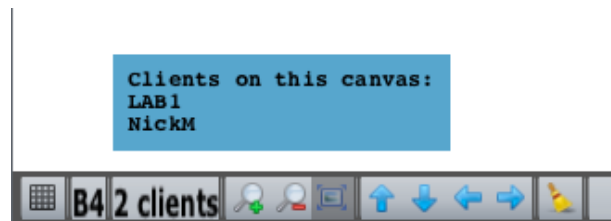
The usernames of the users that are in a particular canvas are displayed in the respective grid cell.



The number of users currently drawing on a particular canvas is also displayed on the bottom menu bar.



Tapping on the client list will display the usernames belonging to the other users on the canvas.

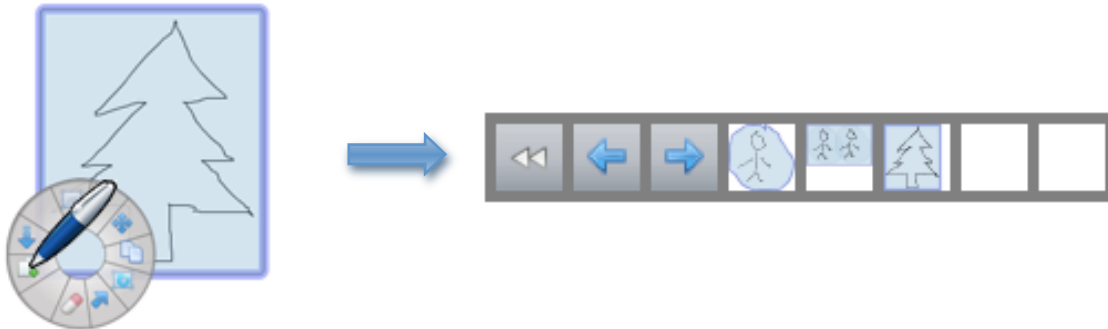


Palette

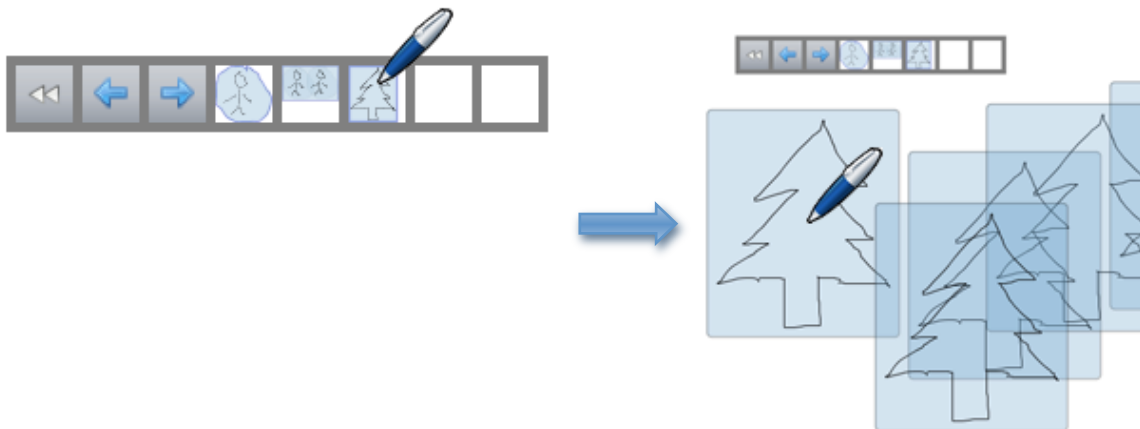
Scraps can be saved and rapidly reused by storing them in the palette. The palette is shared among all users who are connected to the server, and so any item added to the palette is immediately available to all other users as well.



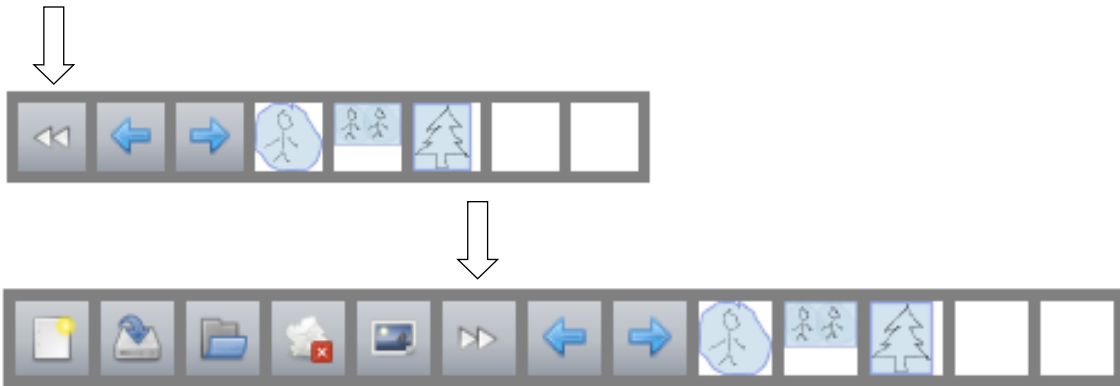
Items can be added to the palette by selecting the “Add to palette” button on the group context menu. The palette will expand as necessary to accommodate new items if it is already full.



Dragging a palette item from the palette will paste it onto the canvas.



The palette menu icons can be hidden or revealed using the double arrow icons.



Pressing the “New palette” button will create a new empty palette.



Pressing the “Save palette” button will open the save dialog and save the palette as a *.cpal file.



Pressing the “Open palette” button will open the load dialog, and load a palette (*.cpal) file.



Pressing the “Close palette” button will close the active palette. Closing the palette removes it from the server, and effectively deletes it, so exercise caution when pressing this button.



Pressing the “Import images” allows the user to import several images at once into the palette. Images can sometimes be surprisingly large in file size, so be prepared to wait while large files are loaded. *Tip:* If an image is too large or small, you can paste it, set the desired size, and re-add it to the palette.



The left and right arrows toggle between the available palettes.

