# Interactive Sketching Notation

The interactive sketching notation is an emerging visual language which fuses user actions and screen sketches together into one deliverable. Through a few simple and standardized rules, what the user sees (drawn in greys, blacks & blues) and does (drawn in red) are unified into a coherent sketching system. This unification of both interface and use, enables designers tell more powerful stories of interaction.
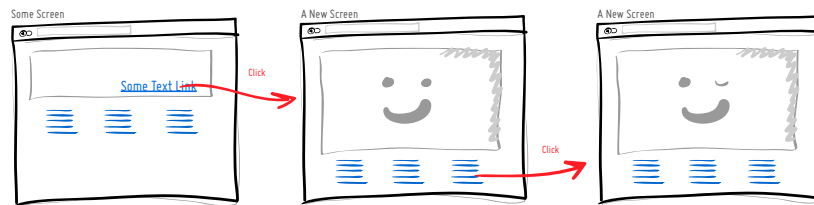
As with all sketching techniques it can be performed on traditional paper, however I find that the best approach seems to be within an electronic medium. Sketching using the computer allows for easier editing and refining which are important characteristics of early exploratory design. Therefore my main weapons of choice which I highly recommend to all, include Adobe Illustrator and a Wacom tablet.

The Interactive Sketching Notation is also an example of light documentation that complements agile processes. While using this approach, do keep in mind that the amount of detail you draw is a variable. Sketching the right amount of scope and at the right level of fidelity is what it's all about. So don't be afraid to leave stuff out for others to fill if it sparks an interesting conversation.
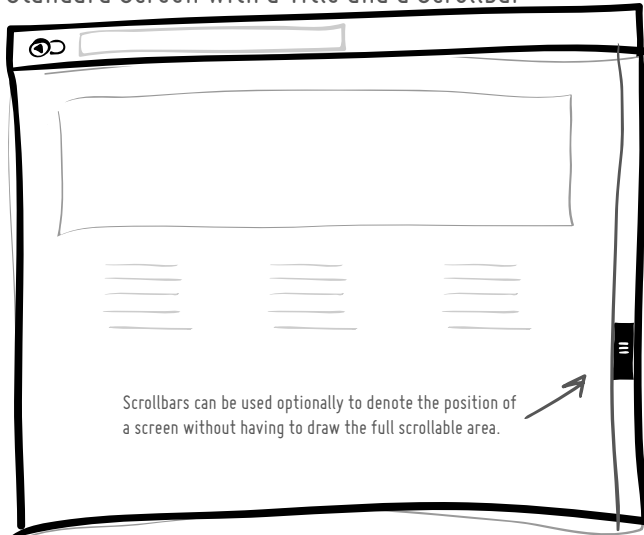
You are also free to use, adapt, remix, share and redistribute this document if you attribute and credit the source properly. If you decide to release another version of this, it has to be done under the same conditions. If you improve or use this on a real project, please also feel free to send me a copy back so that I can possibly incorporate some of your great ideas for others in the next release! Enjoy.
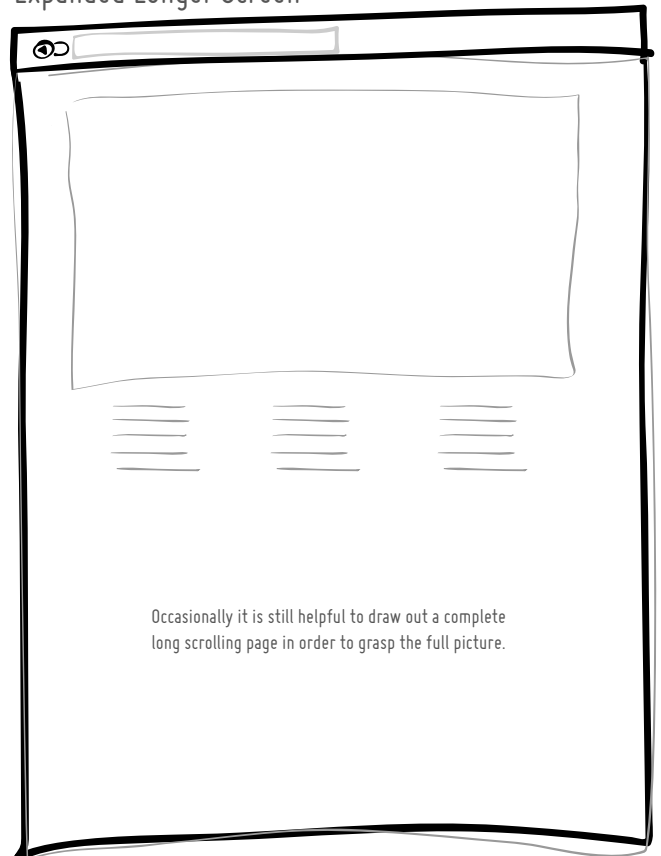
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Screens

The screen is the basic unit of an interface. Screens can be represented in different ways either by showing their full or partial size. Most screens in this notation are shown with a thicker black outline and an optional title above in the top left. Here are a couple preset ones:
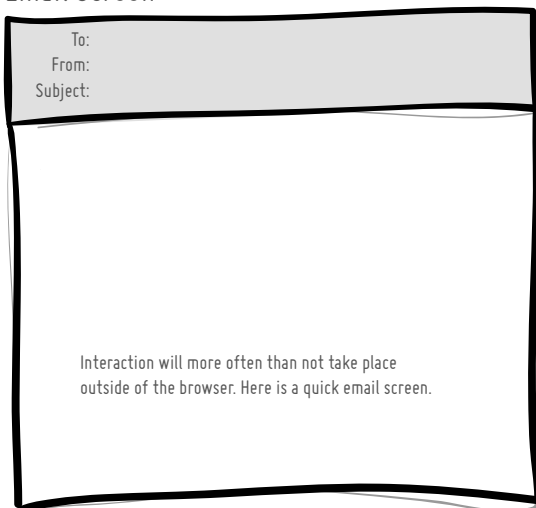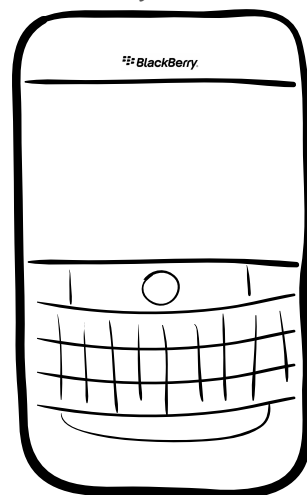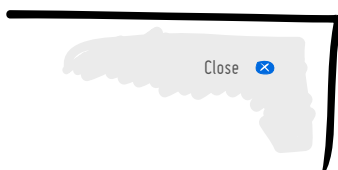
Standard Screen with a Title and a Scrollbar

Scrollbars can be used optionally to denote the position of a screen without having to draw the full scrollable area.

Expanded Longer Screen

Occasionally it is still helpful to draw out a complete long scrolling page in order to grasp the full picture.

Email Screen

To:
From:
Subject:

Interaction will more often than not take place outside of the browser. Here is a quick email screen.

Blackberry Screen

BlackBerry

Screen Corner / Zoom in

Close ⊗

Screen Snippet

abc
abcdefg
abcdefghijkl

When sketching, sometimes we just want to show a small piece of the interface screen. Drawing a corner or a smaller snippet would imply that only those areas are changing during an interaction.

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User Actions

Screens are tied together with user actions in order to tell a story. Each story may have a scenario as a starting point that triggers the narrative and provides a background context. The story then unfolds as action arrows (with optional events, transitions or conditionals) are used to describe what the user has done with the interface (clicks, drags, key presses, etc). All user actions are conveyed in red and all actionable items are shown in blue.
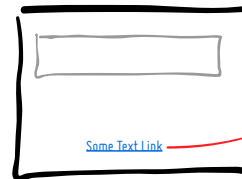
Scenario Title

Scenario description of the user's starting point or goal.
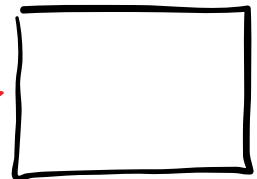
Some Initial Screen Title

Some Text Link
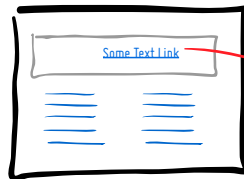
Event

Further Screen

Some Text Link

Further Screen

Events

Events can be used above an action arrow to further describe what the user has done. Here are a couple of standard events:

CLICK	MOUSEOUT	CHANGE	KEYUP	SCROLL
DBLCLICK	MOUSEMOVE	FOCUS	KEYDOWN	SUBMIT
RCLICK	MOUSEUP	BLUR	LOAD	✎ Real World Action
MOUSEOVER	MOUSEDOWN	KEY: X	UNLOAD	

Unspecified Event. A simple arrow that represents a CLICK action by default.

MOUSEOVER

Specific Event. To represent a user action with an event, note it above the arrow.

KEY: CTRL + CLICK

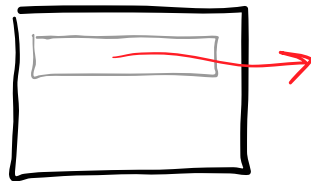**Combined Events (AND)**. An event can be composed of two separate ones that both have to be met before the next screen is seen.
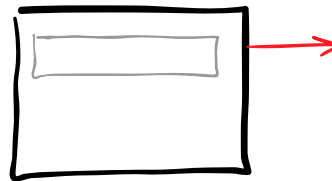
KEYDOWN, CLICK

Multiple Events (OR). A list of separate events that lead to the next screen independently.
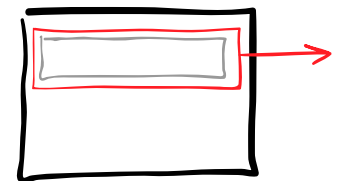
Event Binding

Events can have a variety of starting points. These can be used to show where the user has performed an action.

To Element. A starting point of an arrow that originates from an element inside the screen suggests a user acting upon that element.
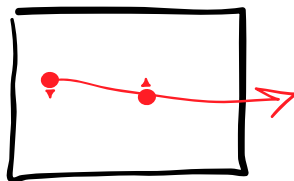
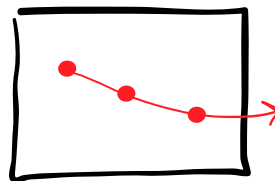**To Anywhere**. An event is attached to the full window. (ex: a key press)

To Area. An event is bound to a very specific area on the screen. (ex: hover with a larger hot spot area)
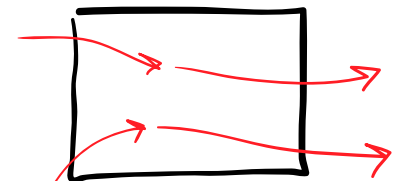
Multiple Interactions

The same screen can be used to show multiple actions that the user performs.

Drag & Drop. Show a drag and drop interaction with two rounded and arrowed circles.

Multiple Clicks. Show two or more clicks at the same time by placing multiple circles along an action line.
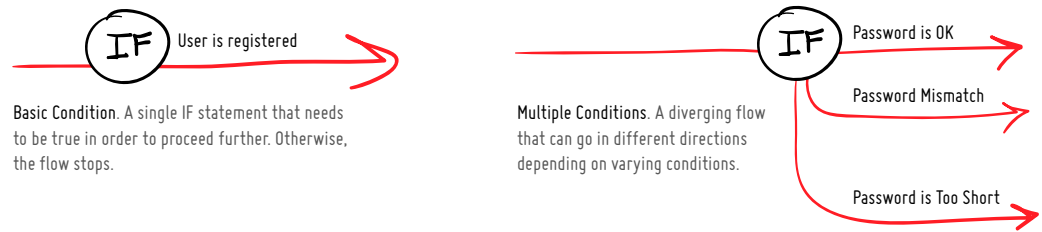
Multiple Actions. If multiple action lines are present at a single screen, make sure the end points of the actions coming in, almost touch the starting points of the following actions.
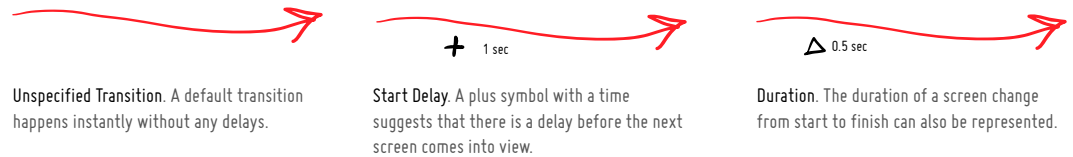
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User Actions - Continued ...

Conditionals

As with all flow of logic, sometimes certain conditions have to be met before further screens appear.

IF — User is registered

IF — Password is OK / Password Mismatch / Password is Too Short

Basic Condition. A single IF statement that needs to be true in order to proceed further. Otherwise, the flow stops.

Multiple Conditions. A diverging flow that can go in different directions depending on varying conditions.
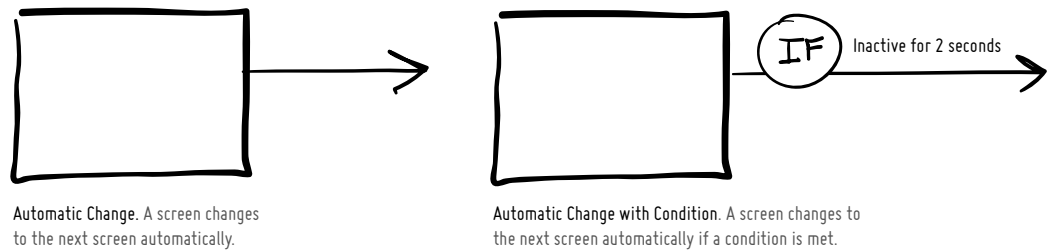
Transitions

Transitions (or screen changes) can also display more granular timing information such as when a transitions starts and how long it lasts.

+ 1 sec

△ 0.5 sec

Unspecified Transition. A default transition happens instantly without any delays.

Start Delay. A plus symbol with a time suggests that there is a delay before the next screen comes into view.

Duration. The duration of a screen change from start to finish can also be represented.

Automatic Screen Changes

Occasionally we might wish the screen to change without the user doing any action. In this case, a black arrow bound to the window can be used to denote an automatic change. These could also be very well combined with transitional timings (delays or durations).

IF — Inactive for 2 seconds

Automatic Change. A screen changes to the next screen automatically.

Automatic Change with Condition. A screen changes to the next screen automatically if a condition is met.

User Types

When dealing with more than one user type, they can be defined in the beginning and then applied to scenarios. This way scenarios can become user specific.

Dev — **Developer**
Quick description or rough persona.

Des — **Designer**
Quick description or rough persona.

Des Dev ▶

User Type Definition. In the beginning of a document, all the user types that will be used can be described.

User Specific Scenario. Placing one or more user types by a scenario starting point, makes the scenario user specific. Scenarios without user definitions suggest a relevancy for ALL user types.

Actionable Items

Keeping what the user has done (red) separate from what the user could potentially do (blue) might be useful for greater clarity. Thus all actionable items such as links or buttons are color coded in blue.

Some Text Link

Some Button

Text Links. Standard blue text with an underline.

Buttons. A blue background shape for more emphasis.

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Variation

Achieving variation of your ideas is a very powerful quality that sketching in particular affords. Designers in early phases often diverge conceptually in order to generate more ideas which can be further discussed, evaluated and selected from. This sketching notation also supports the ability to branch off with multiple related ideas. Here, this is mainly done by using lettering (A, B, C, D, etc.) and vertically aligning the alternatives.

Screen Variations

In order to create an alternative idea for a particular screen, first tag the desired screen with an "A" symbol. Then draw the alternative idea(s) underneath and tag it as "B" and so on.

Screen Title

(A) Screen Title Idea 1

(B) Screen Title Idea 2
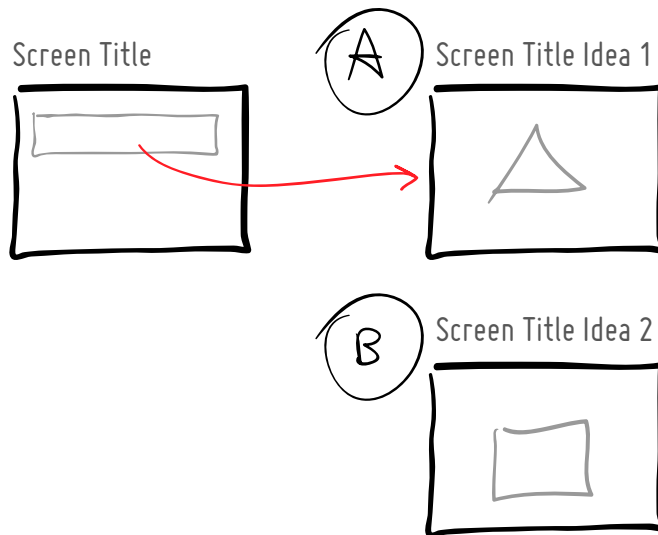
Scenario Variations

Similarly to screens, whole scenarios can also have alternatives. Here is a proposed way to represent this in the scenario context:

(A) ▶

Scenario Title

Recommendations

As more ideas are explored, there comes a time when we need to help lead or guide the process into a particular direction. Here is a way to represent a recommended idea.

RECOMMENDED

(A) Screen Title

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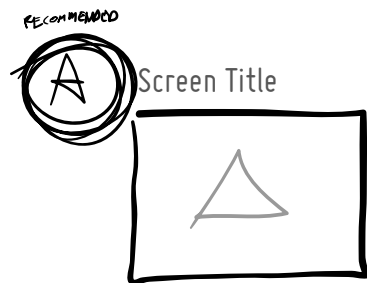
Notes

Notes in this notation are mostly used to help the designer with a potential discussion – sketches are conversation starters after all. In this context, notes are self targeted reminders with the intention of raising advantages, disadvantages, and uncertainties related to sketched out ideas.
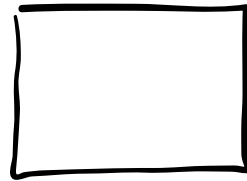
Discussion Notes

When weighing one idea against another, it occasionally helps to write down the advantages or disadvantages explicitly. For this purpose, the plus and minus symbols can be used. Sketches also raise questions or uncertainties which don't have to be resolved immediately yet still can be captured.
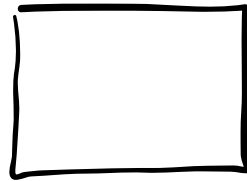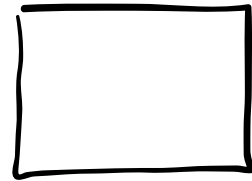
(+) Some advantage

(+) Some advantage

(–) Some disadvantage

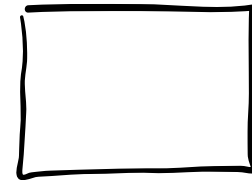(?) Some uncertainty or question stemming from the idea

Todo Notes

The design process does not stop with sketches. Sketches need to be refined into further sketches, or taken to a different fidelity state such as a visual mockup or interactive prototype. Todo notes can be placed by each screen or scenario that need further work.
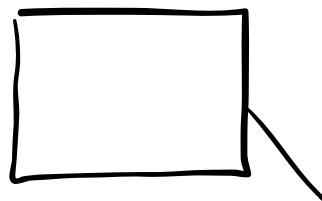
TODO
Some note

TODO: Visual

TODO:
Prototype

Interface Notes

Sometimes it is fastest to convey an idea about how an interface behaves with simple text notes. In this case, a black line can be drawn from the screen edge to a note that elaborates the interface detail.

Some note about how the interface behaves or displays data, etc.

Feedback Notes

When reviewing a flow, various people on a team make recommendations and adjustments. These could be captured using a separate color along with the person's name, ready for the next iteration.
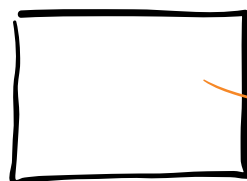
Joe said: that the button could be more emphasized

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Illustrator Setup

Although the notation can be used for traditional pen and paper sketching, relying on an electronic tool such as Adobe Illustrator combined with a pen tablet, makes it a way more powerful tool. Here is how I setup my Illustrator space for best effectiveness.
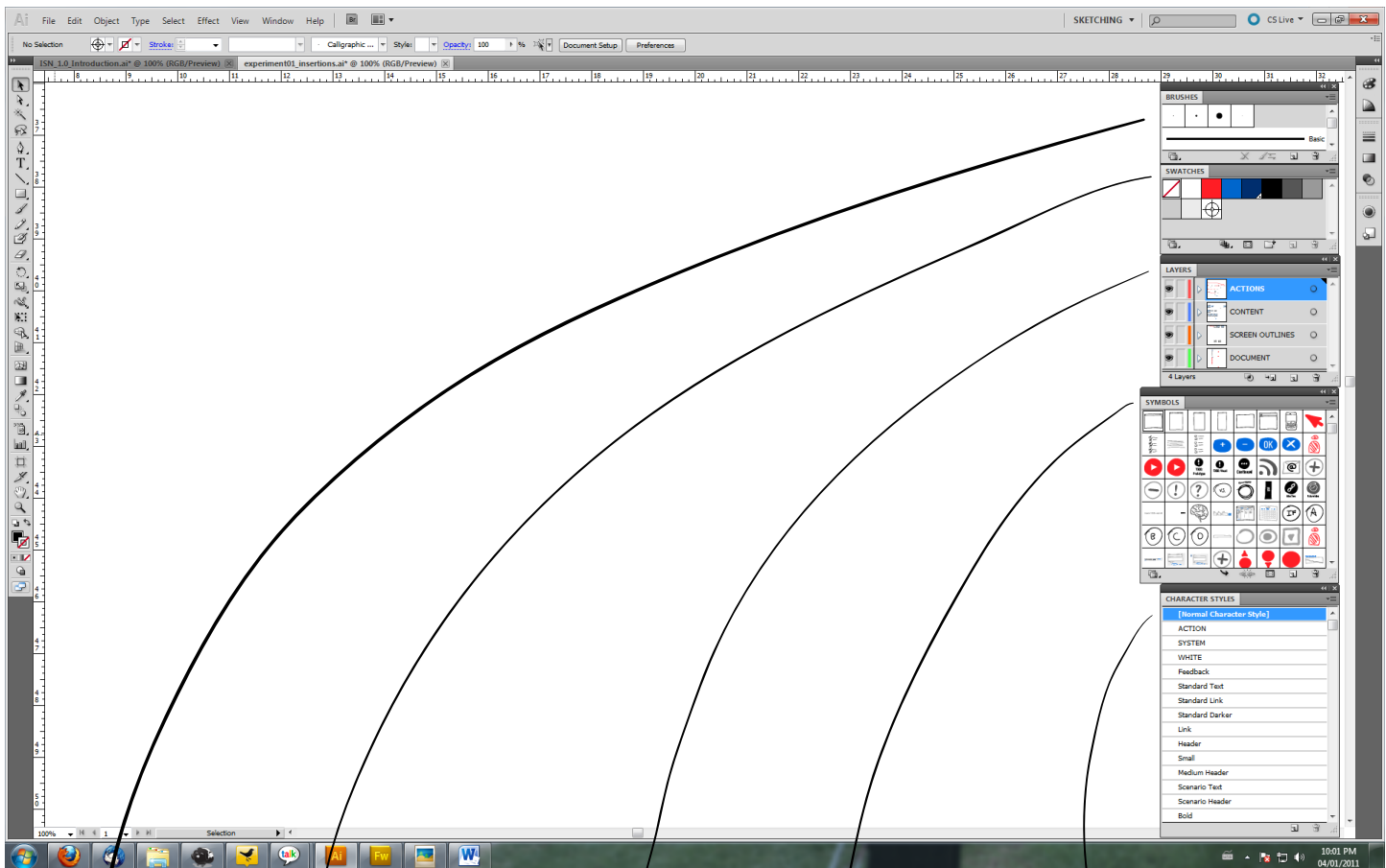
Brushes

A visible brush set is always useful for quicker access. I usually use a 1pt brush for standard strokes, a 3pt brush for screen edges, and an 8pt brush for thicker strokes.

Tip: Double click the brush tool for further brush settings. These I have setup with a fidelity of 3px, smoothness of 6%, as well as the "Edit Selected Paths" is enabled.

Swatches

A few standard colors with a good variety of grey tones that are always accessible is also very useful.

Layers

Keeping your work on separate layers is good practice. I try to place my work on the following layers:

ACTIONS – for user actions

CONTENT – for interface drawings and elements

SCREEN OUTLINES – for all interface screen outlines

DOCUMENT – for all document related stuff such as dates and version information

Symbols

Having the symbols pallete open allows you to quickly drag and drop previously created components or elements. More so, this pallette also allows for the creation of your own symbols or components quickly.

Tip: Drag some selected elements from the workspace into the symbols pallete to create a reusable component/symbol.

Character Styles

Keeping all text definitions in the form of styles is a lot quicker then editing text properties for each text element separately. Here are a couple standard ones for text, links, actions and system elements of various sizes.

Workspace Setup

If I could throw in one last tip, it would be to urge you to sketch on a large canvas or artboard. Not constraining yourself with standard page sizes (8.5 x 11) in the beginning, opens up opportunity for greater freedom of exploration. On a large artboard, screens can be rearranged more freely and all that matters is the flow of narrative. To edit and adjust the artboard double click the Artboard tool.

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