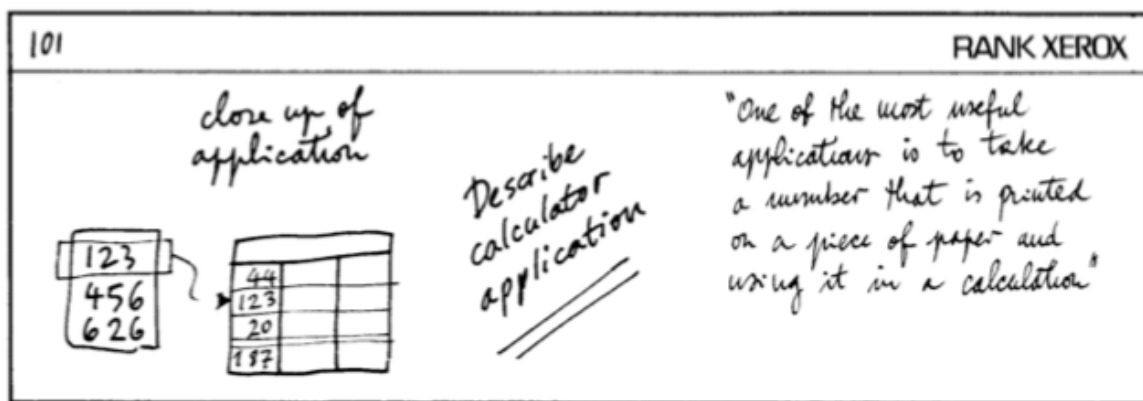# Storyboard

Most artists and designers who work with temporal information, including cinematographers, video producers, animators, and multimedia producers, "sketch" their ideas with storyboards, proving a spatial representation of (usually) linear, temporal information. Storyboards outline the action and capture the key elements of the story. Like a comic book, the storyboard shows a sequence of rough sketches of each action or event, with accompanying dialog (or subtitles) and related annotations (e.g., notes about what is happening in the scene, the type of shot, e.g., pan or zoom, and the type of edit).

Storyboards help designers refine their ideas, generate 'what if' scenarios for different approaches to a story, and communicate with the other people who are involved in creating the production (e.g. camera, sound and actors or 'talent'). Some storyboards are very informal "sketches" of ideas. They include partial information and are generally created before any video has been shot. The figure below shows a hand-written section of a storyboard used to develop a video of a system called the Digital Desk.
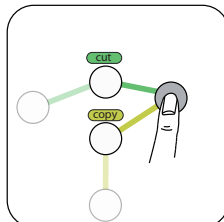

Other storyboards focus on the step-by-step details of the interaction. Here, we see how Ann gets feedforward from *Arpege* to help her perform a chord gesture on an interactive table.
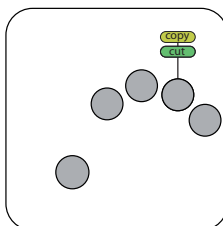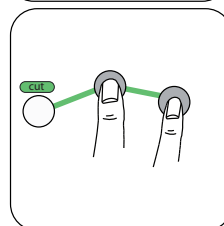

Grey dots indicate placement of the thumb and five fingers.

Labels indicate touching the table with the ring finger can invoke either the *cut* or the *copy* command.

Ann touches the table top with her ring finger and sees two options, distinguished by where she places her middle finger.

(The upper position invokes *cut*, the lower position invokes *copy*.)

Ann places her middle finger to the left of her ring finger and sees that the only remaining command is cut, which she can invoke by finishing the chord with her index finger.

In the earliest design phases, storyboards serve as informal "sketches" of interaction, with only partial information. They help designers uncover problems early, refine their ideas and generate 'what if' alternatives in a low-cost way. Storyboards can be annotated, rearranged and refined and are an effective form of communication with other team members, users and external stakeholders. Placing the elements of a storyboard on separate cards and arranging them (Mackay and Pagani, 1994) helps the designer experiment with different linear sequences and insert or delete interaction points.

Storyboards provide a quick overview of how a user would interact with the new technology and help all participants think more deeply about the design in context. They are design resources in their own right but also serve as the foundation for video prototypes, providing explicit directions on how and what to video. They share some features with film storyboards and comics but the goals differ. The quality of the drawing is not important, as long as the idea is clear. Instead, the focus is on the details of the interaction: the storyboard should illustrate what the prototype looks and feels like and how it responds to the user's actions.

Procedure: Identify the users (based on your personas), the current setting (time and place) and the current situation, including a brief description of what the user would like to do. Next, divide the design scenario into a series of interaction points. Consider how the user(s) will interact with your design concept at each step of the story. Begin each interaction segment with a title card (intertitle) that describes what is happening, followed by a one-three sketches that illustrates the user's interaction with your new system. The group should discuss how to represent each interaction point in turn after which group members can work in parallel to sketch them. If group members do not agree, add interaction points that explore alternative approaches. The following rules are based on McCloud's suggestions for creating comics, modified to suit the purposes of creating a storyboard and video prototype.

Moment	Highlight what matters most, omit the rest	
	Identify specific interaction points in which the user interacts with the technology	
Frame	Create a sense of place, position & focus	
	Start with an establishing shot, then show sequences that illustrate context and detail	
	Begin each interaction point with an intertitle that explains the situation	
	Use a mix of wide shots, mid-shots and close-ups to illustrate the interaction	
	Conclude with a 'credits' title with the names of each group member	
Image	Evoke characters, objects, environments	
	Focus on the user's interaction with the technology, but show context as well	
	Use simple special effects	
Words	Communicate ideas using text or voices	
	Choose between *Intertitle (silent film), voice-over (narrated), dialogue*	
Flow	Guide reader through the key points of the story	
	Begin with *linear storyboards to tell the story*	
	Progress to branching storyboards to explore design alternatives	

The following is an example of a storyboard frame. (You may use index cards, post-it notes or pre-printed storyboard frames.) Begin with the overall title, followed by an initial titlecard to set the scene and an establishing shot. Use additional storyboard frames to illustrate a sequence of interaction points. Feel free to cut apart the different elements and rearrange them as needed. You can copy storyboards and try different ways of illustrating a particular interaction point. When you are satisfied with the individual elements and the flow of the story, place them onto large sheets of paper (legal or A3) and make copies.

Exercise Storyboard

Group _____

a

Scenario title
Group
Date, time of design

_____
_____
_____
_____
_____

b

Intertitle:
Users and basic situation

List personas in greater detail

Describe relevant details of the situation

_____
_____
_____

c

Establishing shot

Long shot

    Sketch of people talking in a meeting

_____
_____
_____

c

Intertitle:
Describe the situation

Add voice-over here or instructions about

how to shoot the scene

_____
_____
_____

d

Mid-shot :

    Sketch of two people talking

_____
_____
_____

c

Close-up

    Sketch of a smart phone in hand

_____
_____
(page ___ of n)_____