LUMIERA GUI CONCEPT
by Christoph Varga

—DRAFT— Version 01, March 2015

Graphic Layout Structure
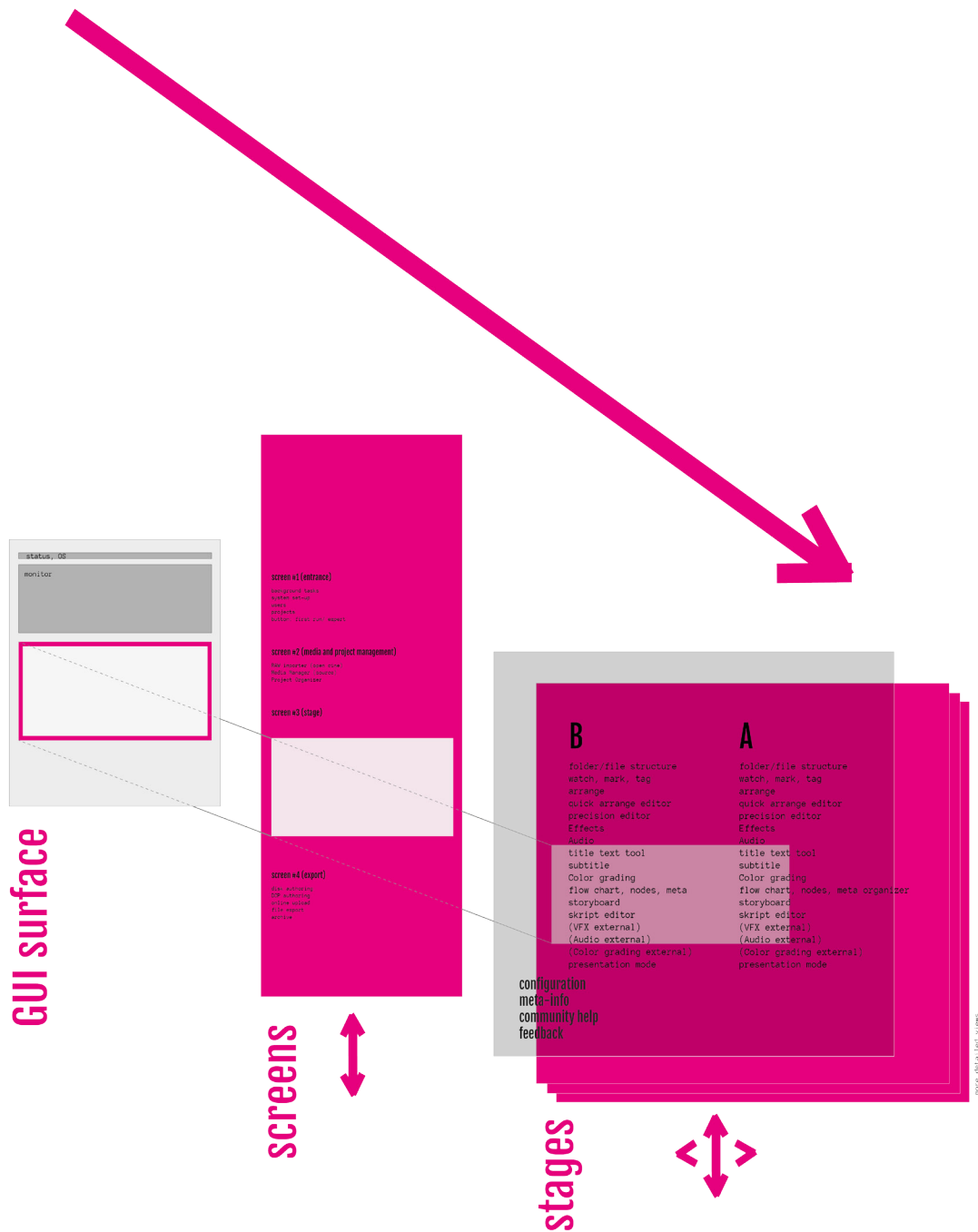Workflow User Experience
Graphic Design
Interface Controller
Tools, Trim Editing
Additional Notes

GRAPHIC LAYOUT STRUCTURE

graphical window surface and it's
elements as 3D sketch

GUI surface

screens

stages

status, OS

monitor

screen #1 (entrance)

background tasks
system access
users
projects
Editor (basic) / export

screen #2 (media and project management)

Web internal / open sink
Media fetch / Source
Project Organizer

screen #3 (stage)

screen #4 (export)

quick mastering
DCM mastering
Online upload
File export
Archive

B

folder/file structure
watch, mark, tag
arrange
quick arrange editor
precision editor
Effects
Audio
title text tool
subtitle
Color grading
flow chart, nodes, meta
storyboard
skript editor
(VFX external)
(Audio external)
(Color grading external)
presentation mode

configuration
meta-info
community help
feedback

A

folder/file structure
watch, mark, tag
arrange
quick arrange editor
precision editor
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title text tool
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flow chart, nodes, meta organizer
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skript editor
(VFX external)
(Audio external)
(Color grading external)
presentation mode

more detailed views

GUI Surface
On top is the 'monitor-window' (viewer) which can be also on a separate dis-
play. It is always there and can be changed in size and information level. The
monitor reacts on what is going on in the 'screens – window' or to put it the
other way it serves the screen-window and it's actual need. There can be one or
multiple moving pictures at the same time.

Screens
This is a long scroll down 'page' as we know it form most web sites nowadays.
It is simple, as we open lumiera we are somewhere at the top (not the very top
because there is set-up and background tasks hidden which we won't see at the
login) and regarding the workflow we follow the list of screens down.
At the editor screen it get's more complicated -> we enter stages..

Stages
are like a real stage where we put our working material for manipulation. The
material stays in the centre and the stages around will change according to
what we want to do.

The stage curtain can be set at three different position so that the depth of
the stage will change. This is a metaphor for the level of information and de-
tails we want to see.

Stage A (also Deck A) and B. For editing we need to copy things forwards and
backwards, that is why we need a source and a target. Therefore A and B, two
stages in one room. Put any object on any stage in the way you need.
Beside scrolling up and down we need now a switch from A to B, from right to
left in some graduations at hand, as easy as possible.

In the back of the whole room (Stages A and B) there is a small room for light-
ing control. That means we step back a little, the stage is still in sight but
a little dimmed and we can access a set of overlaid layers with additional in-
formation and controls regarding not to the material we manipulate but the ap-
pearance and behaviour of the stages itself. (also links to community help vid-
eos and feedback possibilities of what we actually see underneath these layers
on the stage. it's like a meta view)

Stages can be treated like add-ons where every user can put together all the
functionality he/she want's. Therefore we can provide a very simple end-user-
friendly version of lumiera with just the basic features like those which are
marked magenta in the list three pages later.

Snapshot of the more detailed hierarchical map (which you can seen in the .mm file within the folder).

Workboards

data links

status bar

Monitors

screen #1 (entrance)

screen #2 (media and project management)

Deck B

dummy substage

folder/file structure

watch, mark, tag

arrange

quick arrange editor

precision editor

Video D

Effects

Audio

title text tool

subtitle

Color grading

Video F

Deck A

storyboard

skript editor

(VFX external)

(Audio external)

(Color grading external)

presentation mode

screen #3 (stage)

screens

Lumiera GUI

Applications

Operating System

however the relation to the OS l...
can trip arrount between lumier...
be very well implemented in the
here i suggest '*workboards*' whic...
a clipboard to hand them from o...
or by software they belong to. th...
view. they contain a whole proje...
organizer) or as a stand alone fu...
system there are options like 'D-...

...ch deck have one playhead. Playheads are static in the
...s transported through. (so we don't have the situation
...the window and the timeline have to jump afterwards.)

...different levels of details. form very simplistic to
...s on a stage and each one opens more depth showing

configuration

info and metainfo

community help

feedback, report, discuss

layers (supervisor view?)

Working Environments

disk authoring

DCP authoring

Export/Delivery

screen #4 (export)

commands

gestures

Lumiera Automation

Color grading tool

Audio tool

VFX tool

GRAPHIC LAYOUT STRUCTURE

all the screen elements (inclusive stages) in list form as it can appear for
navigating through lumiera.

screen #1 (entrance)

background tasks
system set-up
users
projects
button: first run/ expert

screen #2 (media and project management)

RAW importer (open cine)
Media Manager (source)
Project Organizer

screen #3 (stage)

B

folder/file structure
watch, mark, tag
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flow chart, nodes, meta
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(Audio external)
(Color grading external)
presentation mode

screen #4 (export)

disk authoring
DCP authoring
online upload
file export
archive

For beginners or first use there should be less options available, for example
only the magenta highlighted ones in the following picture.

first run

screen #1 (entrance)

background tasks
system set-up
~~users~~
~~projects~~
button: ~~first run~~/ expert

screen #2 (media and project management)

RAW importer (open cine)
Media Manager (source)
~~Project Organizer~~

screen #3 (stage)

B

folder/file structure
watch, mark, tag
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A

~~folder/file structure~~
watch, mark, tag
arrange
~~quick arrange editor~~
precision editor
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~~Audio~~
~~title text tool~~
subtitle
Color grading
flow chart, nodes, meta organizer
~~storyboard~~
skript editor
(VFX external)
(Audio external)
(Color grading external)
~~presentation mode~~

screen #4 (export)

~~disk authoring~~
DCP authoring
~~online upload~~
~~file export~~
archive

WORKFLOW, USER EXPERIENCE

You meet lumiera, say hello and tell it what project you want to work on. You follow it's trail from organizing footage over watching, marking and finding some proper way to separate and group, to going into creative processes in montage fluently, to doing some technical finishing work, maybe you have to go back some steps and restart.. at the end you deliver your work.

I wanted to put all the complex functionality not in one but in different places along a line of psychological different states of mind during the editing process, different kind of thinking/doing from the start of a project to a finished piece of art. One thing at a time!

While film editing anyway results in a linear form i thought going through a project linear is a good thing. (It would work best with some hardware control which allows us to translate our manual capacity of movement into a linear, precise and fast movement on the screen)
As the example before shows it is possible to put screens and stages in one row. To switch between each point it can require a small new orientation and physical reposition.

Processes which are used immediately after one another and don't require a reorganisation in thinking, they should be within one stage organized as 'views' and 'sub-views'. No physical new orientation (e.g. change from mouse to keyboard, search for buttons on the screen,..) should be required here.

That is what the software provides us visually, it opens specific ways of showing and manipulating our material. What we have to perform these manipulations are simple functions (one time action) and more complex gestures (idea by hermann) which let us perform an action in different ways like a musician plays one tone in so many different qualities.
For example one kind/label of sub-views is 'command'. A command opens the possibility to manipulate in a specific defined way with the help of the known gestures of the system. Gestures are depending on the hardware interfaces (mouse, pen, keyboard, lumiera-interface). The GUI should only provide elements which are needed for the used hardware interface, so that with an 'lumiera-interface' no visual buttons are shown.

WORKFLOW, USER EXPERIENCE

Workflow example

Screen : manage volumes
Screen : import source media
Stage 1: watch media and set In/Outs
Stage 2: loose arrange clips in 2D space + organize groups
Stage 3: create time as a flexible object to create a chronological order
Stage 4: show clips in chronological order (time is straight) in 2D space
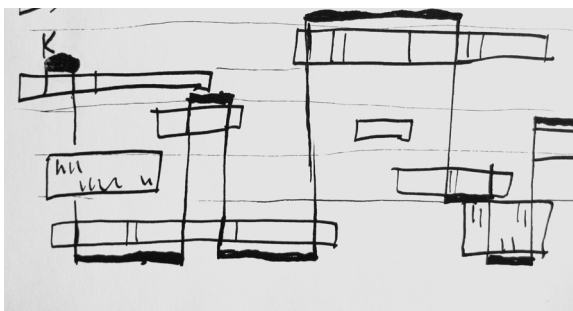Stage 5: classical track based precision trim
Stage 6: program relative clip behaviour on meta view
        (e.g. for subtitles: copy style and position of element
         x to element y)

create time
as flexible
object
(stage 3)
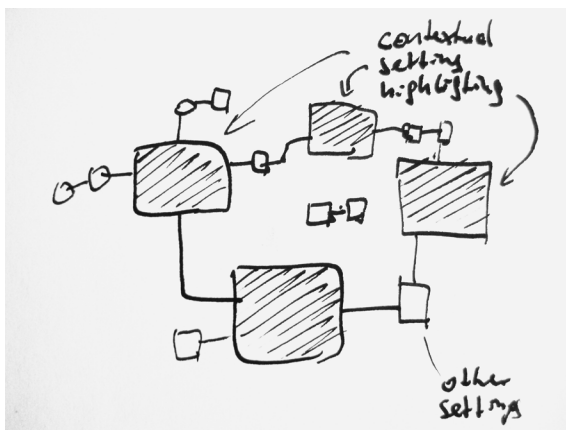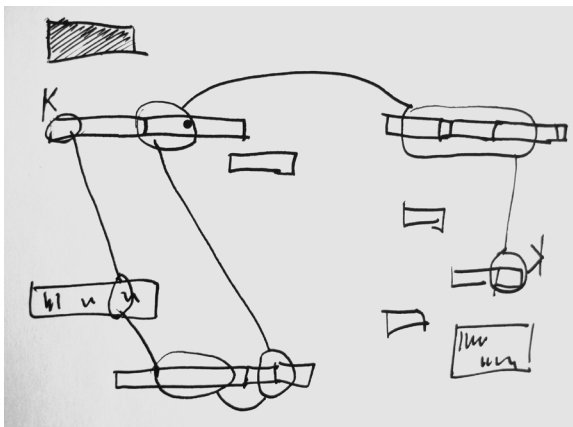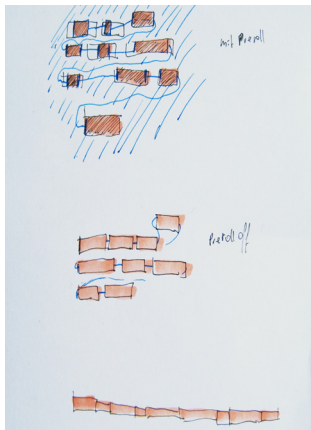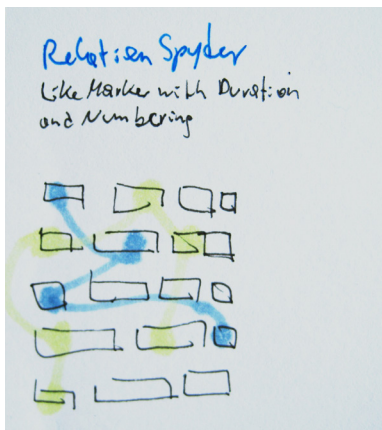
meta view to
set relations
and behaviour
(stage 6)

clips in chronological order on 2D
map, selection with time object is
jumping from clip to clip (stage 4)

GRAPHIC DESIGN

Since i am not a graphic designer there is not a real concept for the design. I would recommend to ask an professional for the realization.

Also i want to mention that elementary OS has it's own HIG Guidelines
http://elementary.io/docs/human-interface-guidelines
And ozon OS has a very nice set of symbols and a clear design.

Can all the design be stored in some sort of css stylesheets? Almost like an html web site? So that a redesign would be easy?
Personally i think that the structure suggested in this document leads to a huge set of individual pages with as less content on each page as possible. That gives (hopefully) freedom to graphic designers.

Some ideas
Typo should be used a lot and regarding to it's size, position and colours it should be easy to recognize and understand which values are to change by the user or what is just information provided. Orientation is also one of the top issues which can be supported by a clear use of typo i guess.
One main thing to communicate is the overall program structure, where to find what. As effective as possible. I wish there will be some feedback concerning the understandability of this structure.

collected visual impressions..
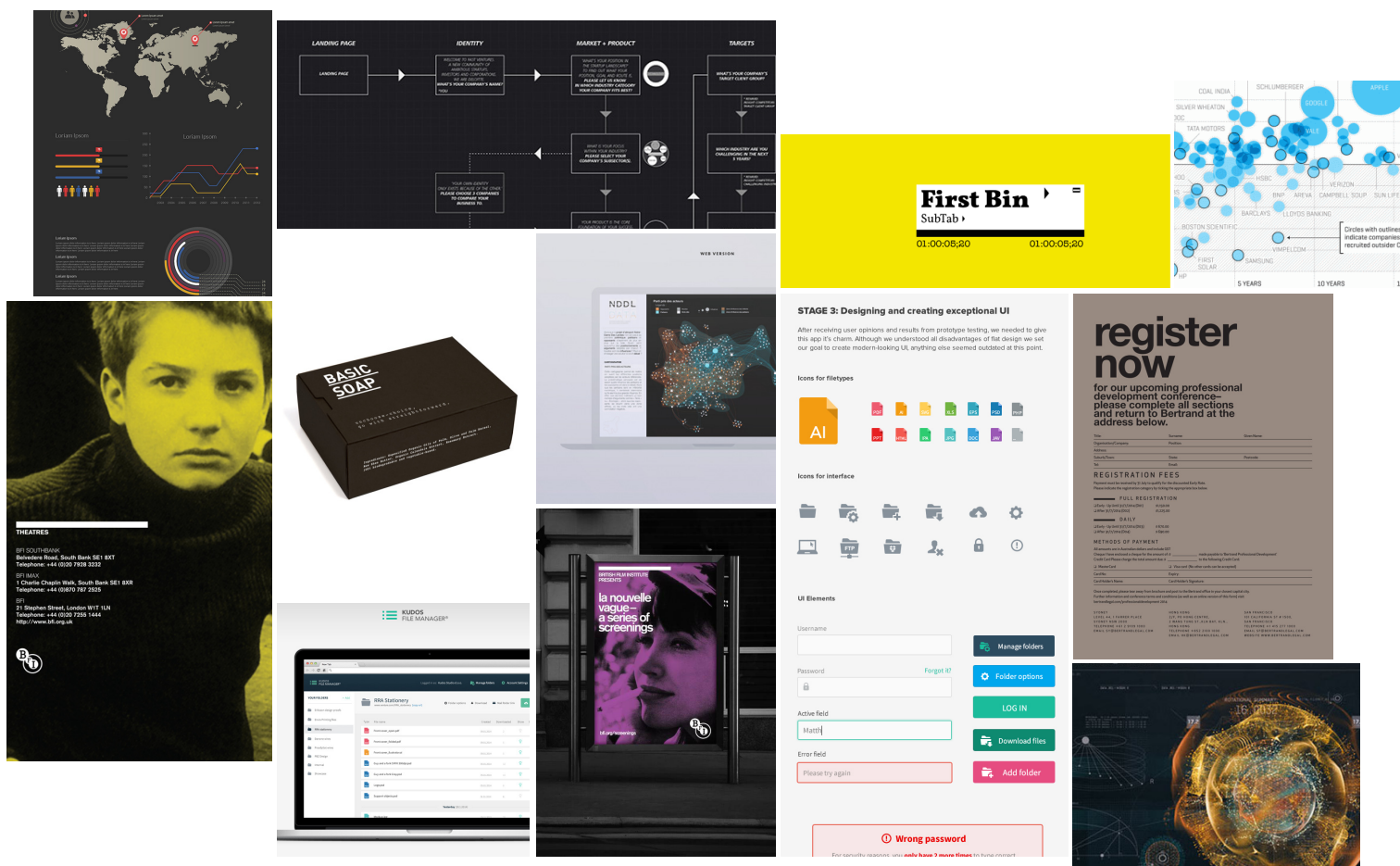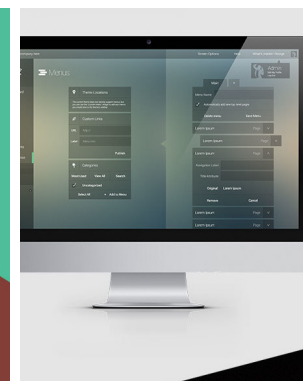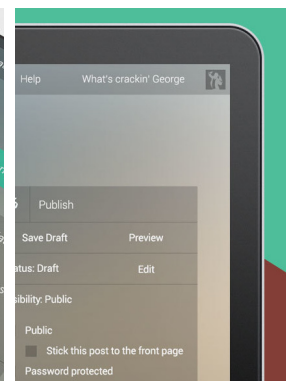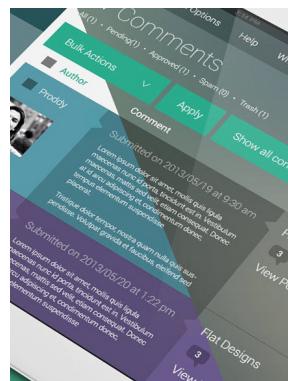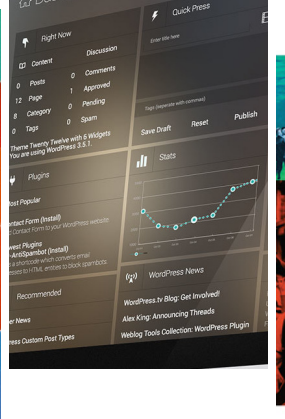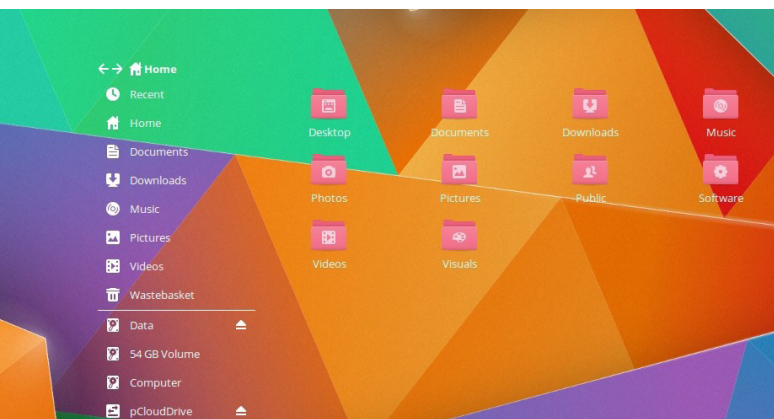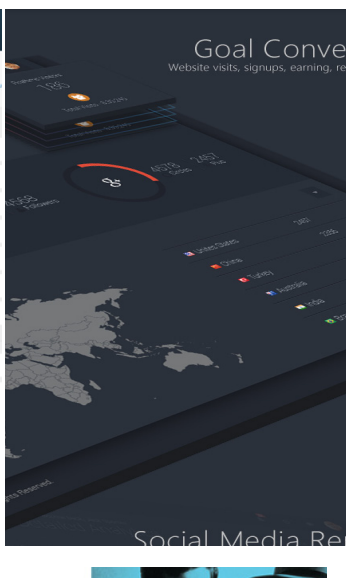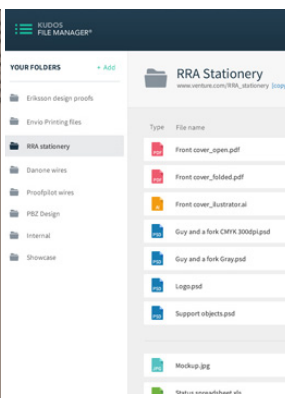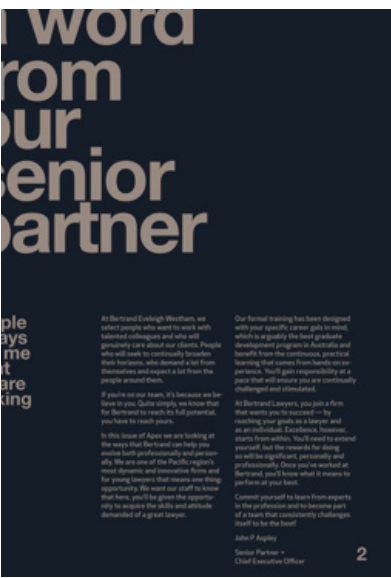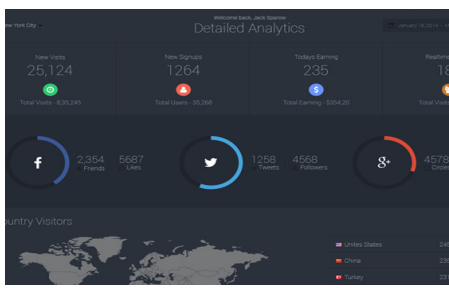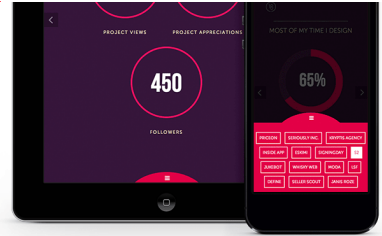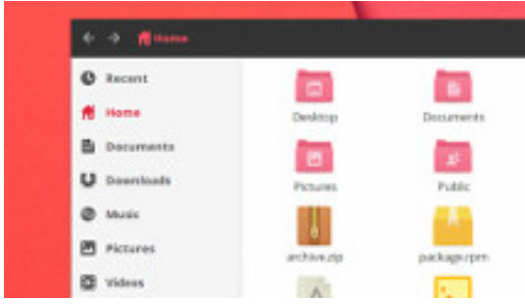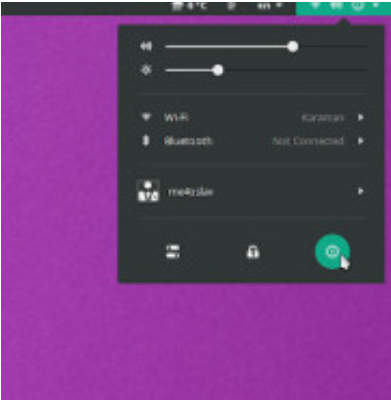
INTERFACE CONTROLLERS

(under construction)

Mouse
Mouse and Keyboard
Keyboard
Graphic Pen
Graphic Pen and Keyboard
Lumiera Interface (console)

Gesture Concept (by Hermann)
The user have a set of gestures which can be performed by each input device. It should evaluate following qualities: certain movements, intensity, direction, variable velocity, repetition (rhythm),... ?
Depending on the active command (tool) these gestures have different meanings.

general procedure to perform a command:

–navigate in time
–mark in/out
–select vertical layers
–choose subview/tool
–execute
     use time navigation,
     gestures or keys
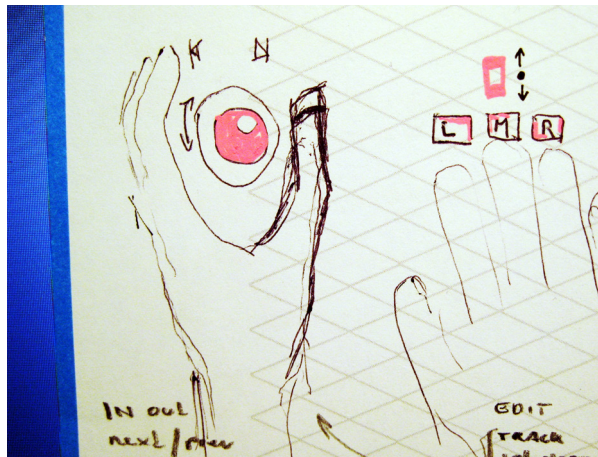
Mouse/pen
right click with the mouse could open a cloud/circle with symbols for each command on top of the screen, so that there are no other buttons in the interface needed. In the combination with modulator keys on the keyboard the mouse movement could mean different forms of modulation (=gestures).

Lumiera Console (Hardware interface)
There are different groups of commands: navigation in time and hierarchy, mark positions, select objects, do/ execute

One hand should navigate and mark on it's first position. Second position is for navigating in lumiera (maybe OS too) and for controlling the graphical interface appearance.
The second hand should perform commands, also with two or three positions.

Everything should be able to use without to have a look on it, only be muscle memory and tactile structured surface of the interface. I have done some clay models to evaluate the tactile experience.

This project could be crowd funded and it's design should be aware of easy replication with 3D printers and the PCBboard via OSHpark.com or cable wired to Arduino.

LUMIERA CONSOLE

both hands
A/B

?

left2

left1

right1

right2

——under construction———
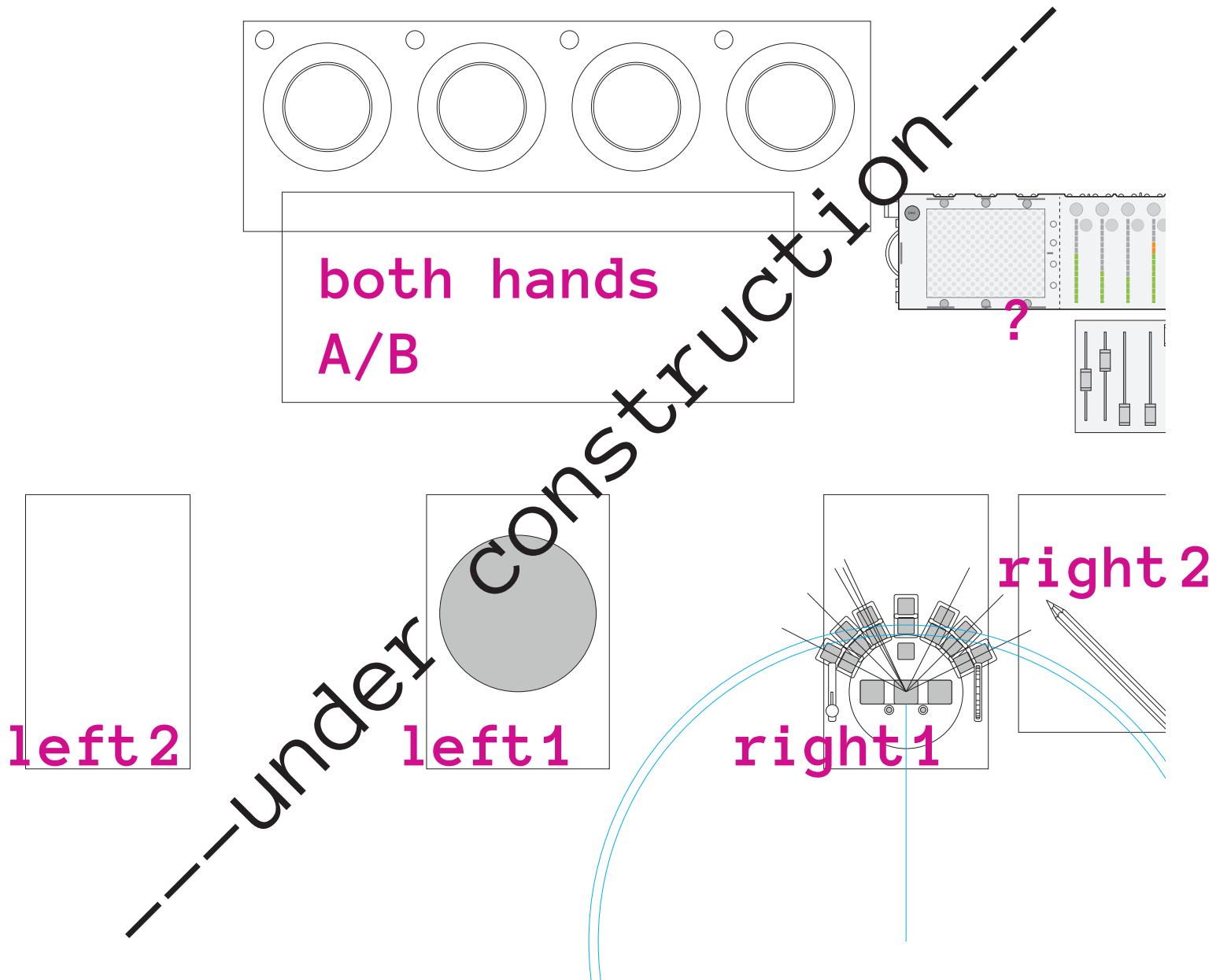
one hand: position1: navigation in time
                 position2: navigation in the program structure

second hand: position1: do (execute commands)
                 position2: opt. do (with a different interface)

both hands: in the second row: A keyboard, B color wheels
                 (for short term usage)

TOOLS, TRIM EDITING

#1 trim

#2 extend

#3 reduce

#4 slip/
roll
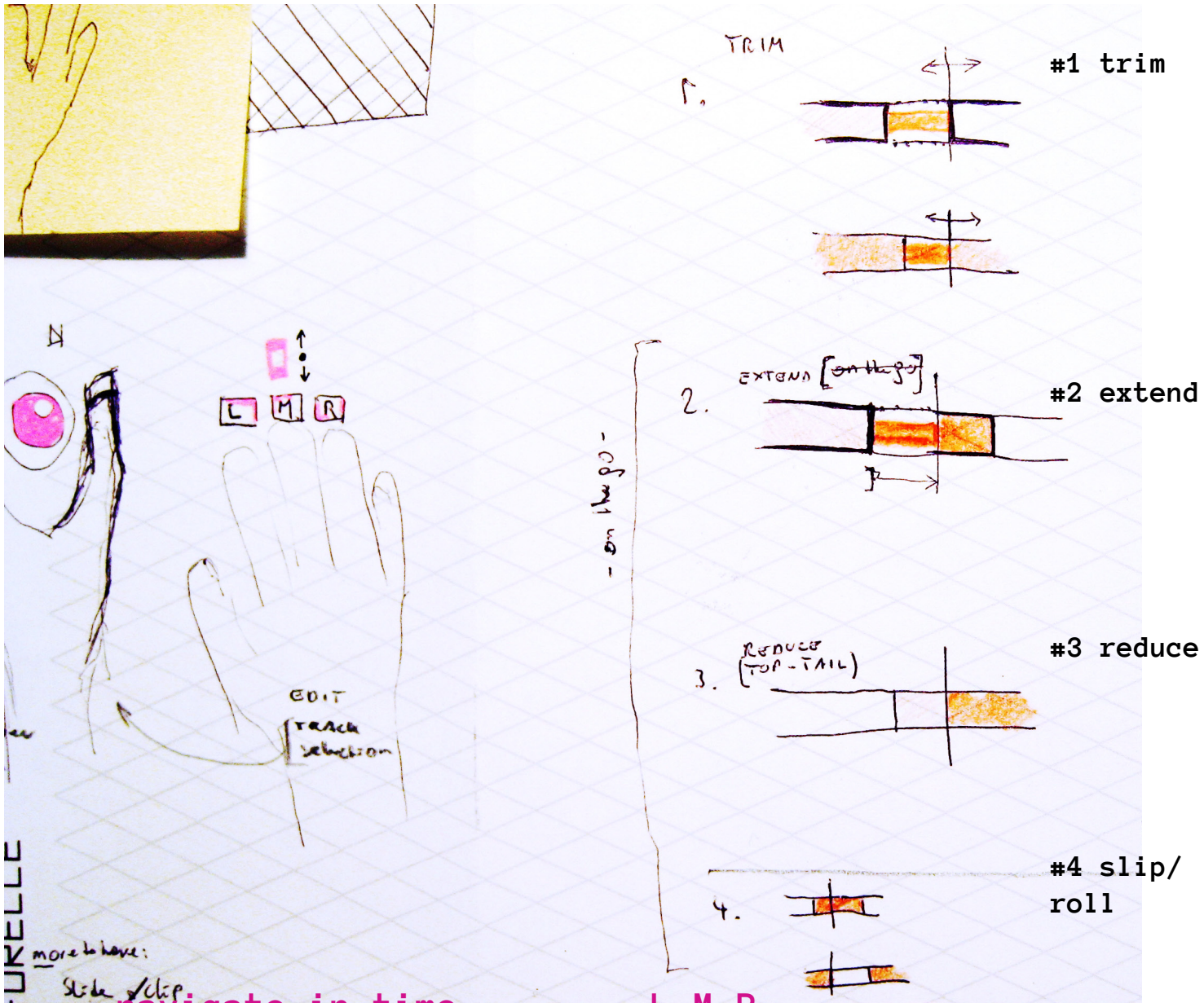
navigate in time   ---   L-M-R

easy access operation..

#1 trim
activated when playhead position is paused on an edit.

hold down 'R'+ move playhead = roll left clip-end   +leave gap option
hold down 'L' + move playhead = roll right clip-beginning   (see on page 15)
hold down 'L' + 'R' + move = roll edit (on both sides)
when the button(s) are released the operation is confirmed. to escape and return
to the start you have to press 'M' in addition, then release all buttons.

it effects all the edit points of the selected tracks the same way, for diverse
trim operation you have to enter 'complex trim operations' which sets ripple/
roll decisions first and then starts to move the edit points.

TOOLS, TRIM EDITING

on the fly operations..

#2 extend

active when the position of the playhead is on any position IN a clip (not on the edit point)

long press 'R' = rolls the edit point left of the ph. over to the actual ph. position
long press 'L' = rolls the edit point right of the ph. over
long press 'M' + 'R' = roll left side, ripple right side
long press 'M' + 'L' = roll right side, ripple left

(with 'M' in addition the relation of the whole rest of the track to the general time is affected)

depending on the mechanical possibilities of the interface, the 'long press' of a key can be replaced by a 2nd intonational click of a button (e.g. different direction or forced press?)

#3 reduce (top/tail cut)

active when the position of the ph. is IN a clip

press 'M' + 'L' = delete left side (start) of the clip and ripple (move) the rest of the track to the original start edit point position
press 'M' + 'R' = delete right side (end) of the clip and ripple without a gap
press 'L' = cut left side and leave a gap
press 'R' = cut right side and leave a gap

(with 'M' in addition the relation of the whole rest of the track to the general time is affected)

#4 slip/roll entire clip

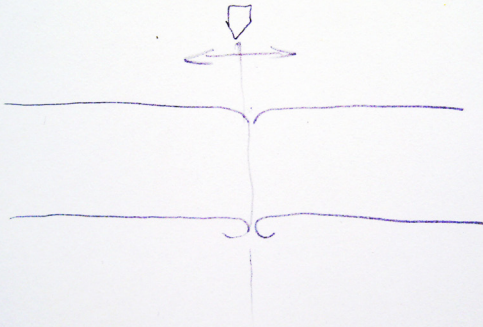when ph. is parked anywhere in the clip
hold 'M' + move ph. = roll the clip while preserving the edit points

when ph. is parked on the starting edit point of a clip
hold 'M' + move ph. = slips the entire clip to another position in the timeline
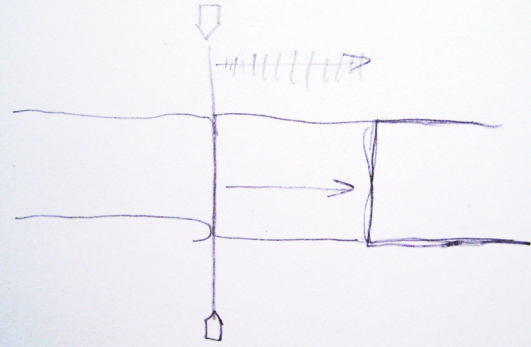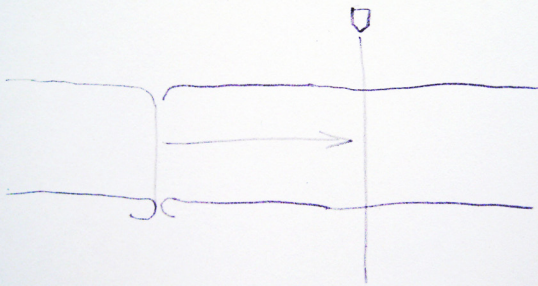
TRIM ROLL
#1 trim

2x
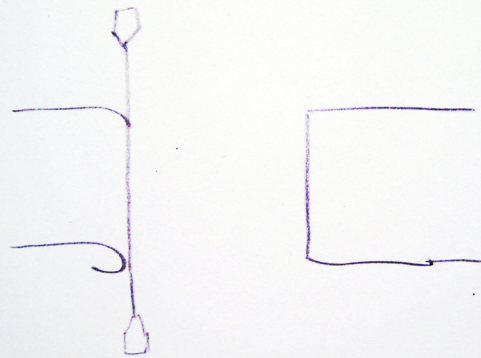TAIL|TOP
#3 reduce

TAIL|TOP
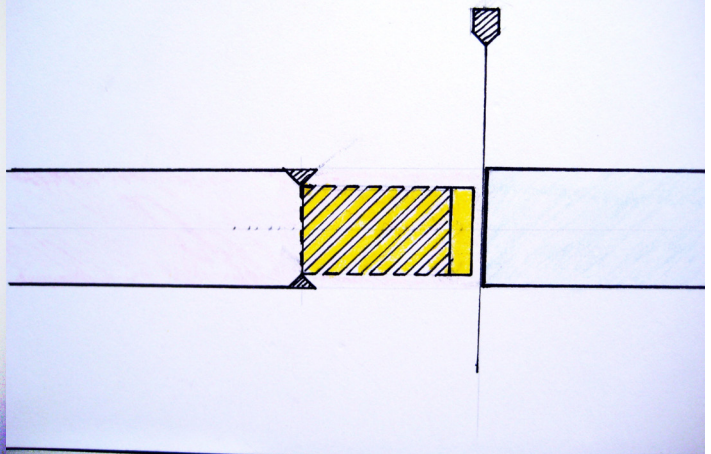
EXTEND
#2 extend

TAIL TOP   LEAVE GAP
#3 reduce

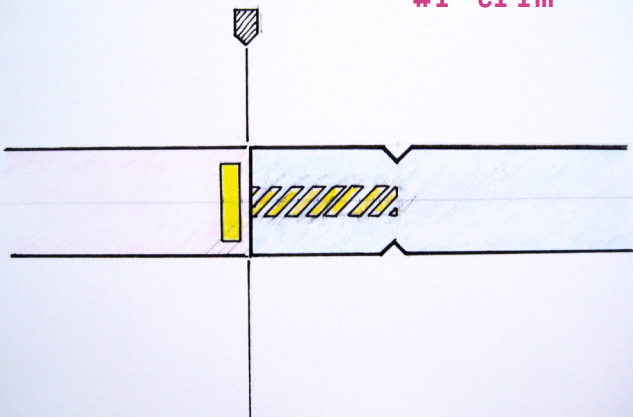RIM RIPPLE |ROLL   LEAVE GAP
**#1 trim
+leave gap**

useful?
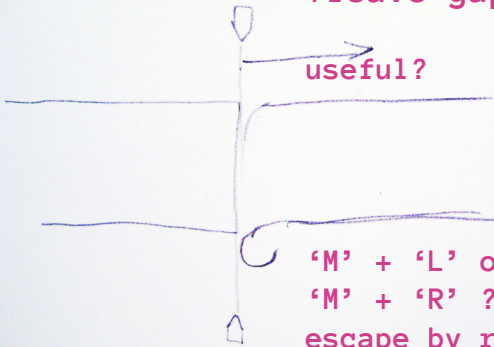
**'M' + 'L' or
'M' + 'R' ?
escape by releasing
'L' or 'R' bevore 'M'**

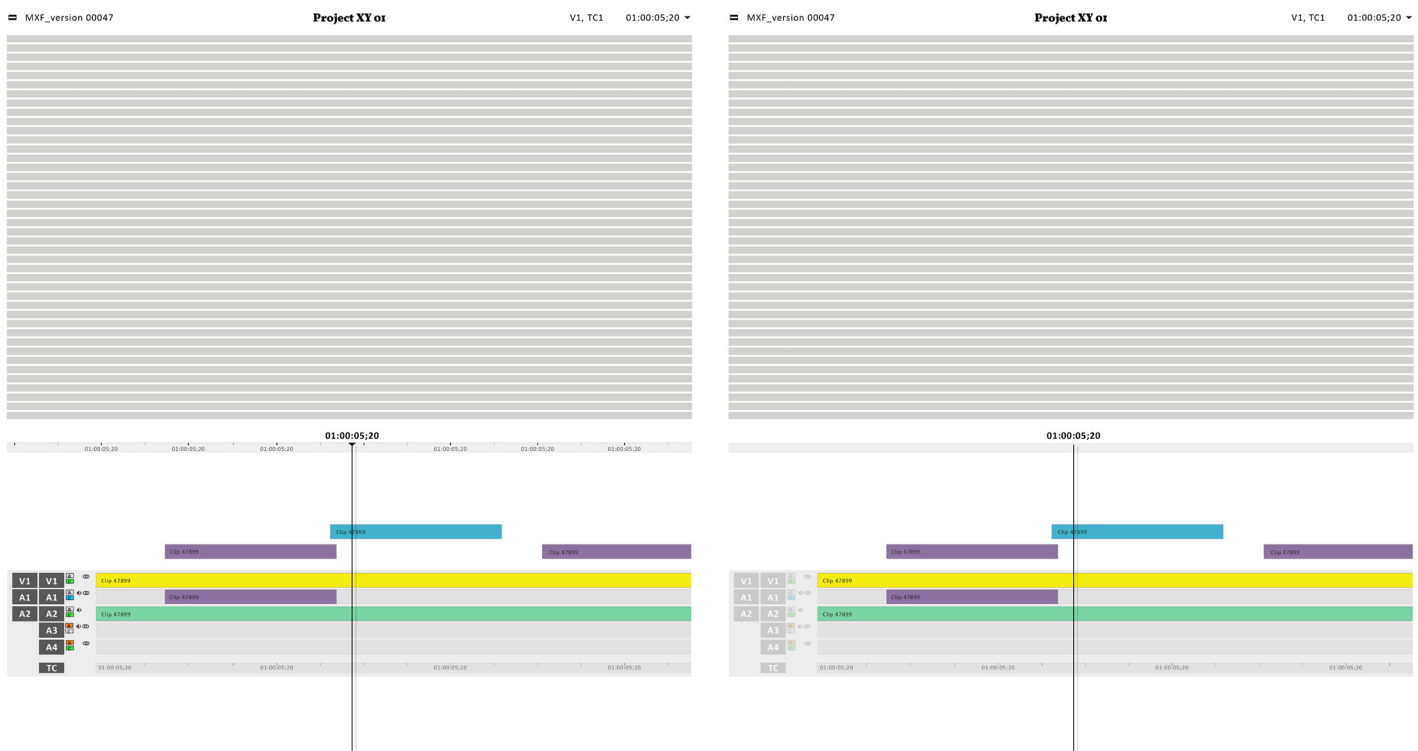**#1 trim**

#1 trim

2x
TRIM RIPPLE ROLL
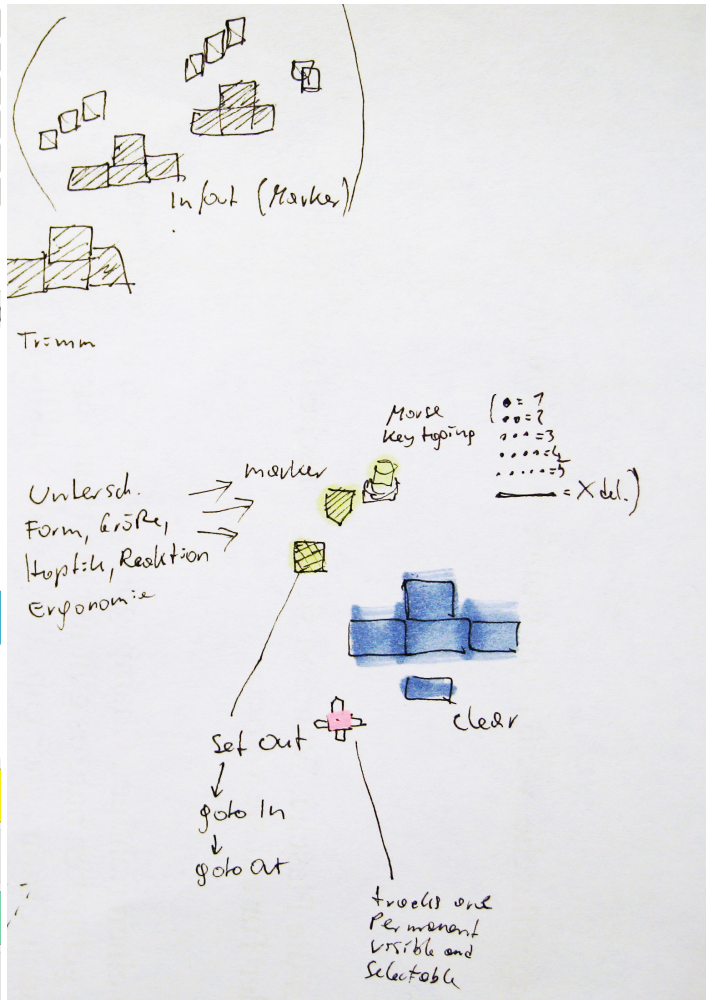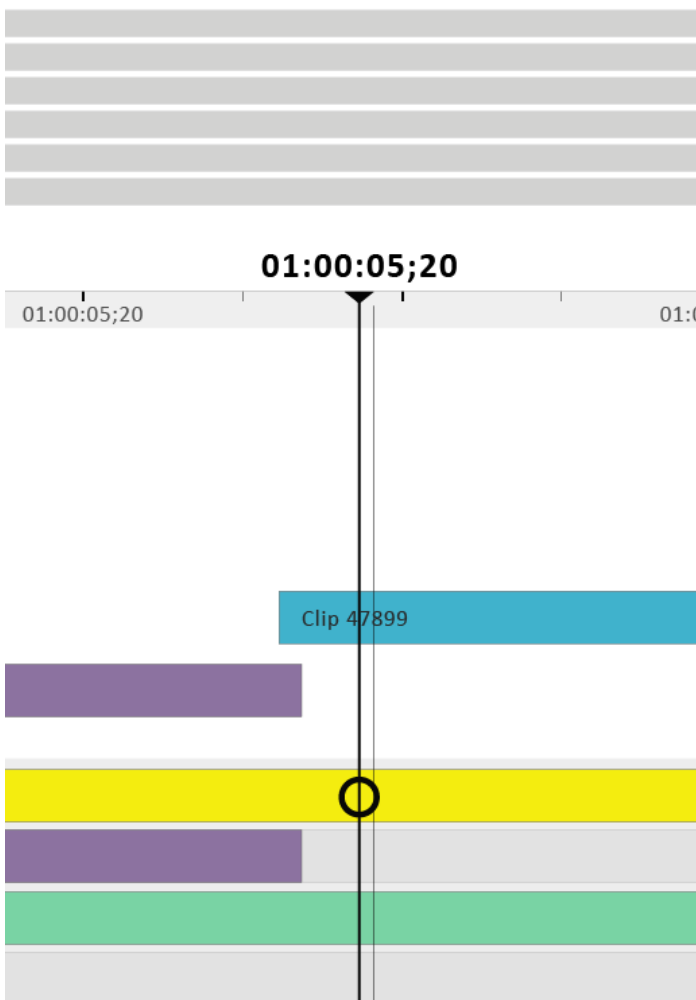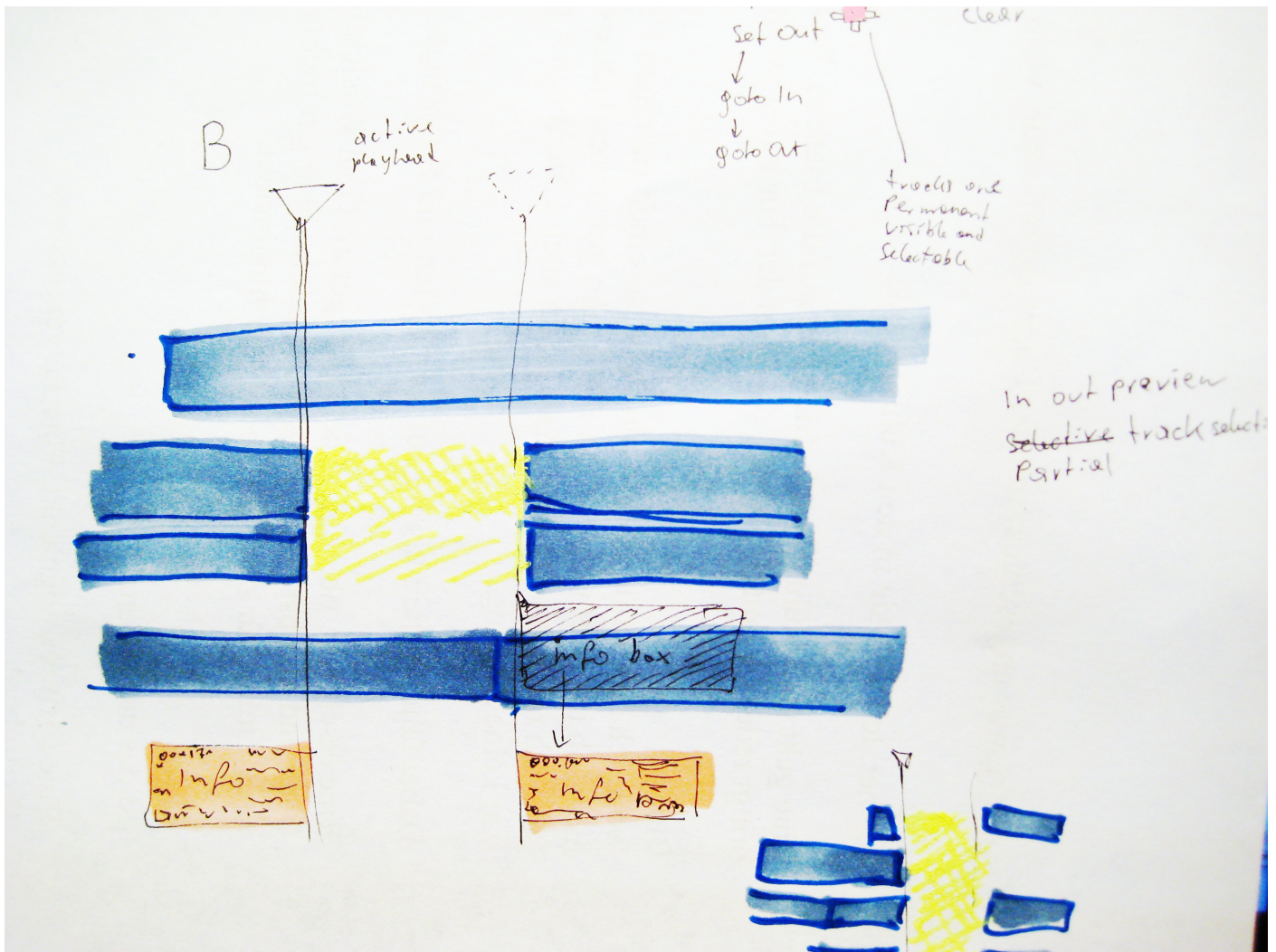**#1 trim**

complex trim operations
(for interdependent trimming over all layers/tracks)

the 'lumiera console' has to have an specific selection wheel which is dedicated
to vertical selection. it can scroll in steps through all layers or tracks and
it will take a click on each position for selecting/deselecting.
complex trim operations need to be a separate mode (subview) to avoid random
mistakes. here you are free to switch back an forth between edit points while
you are selecting and you can set which side to be rolled or rippled with the
'L—M—R' keys. the difference of this special mode is that you set ripple/roll
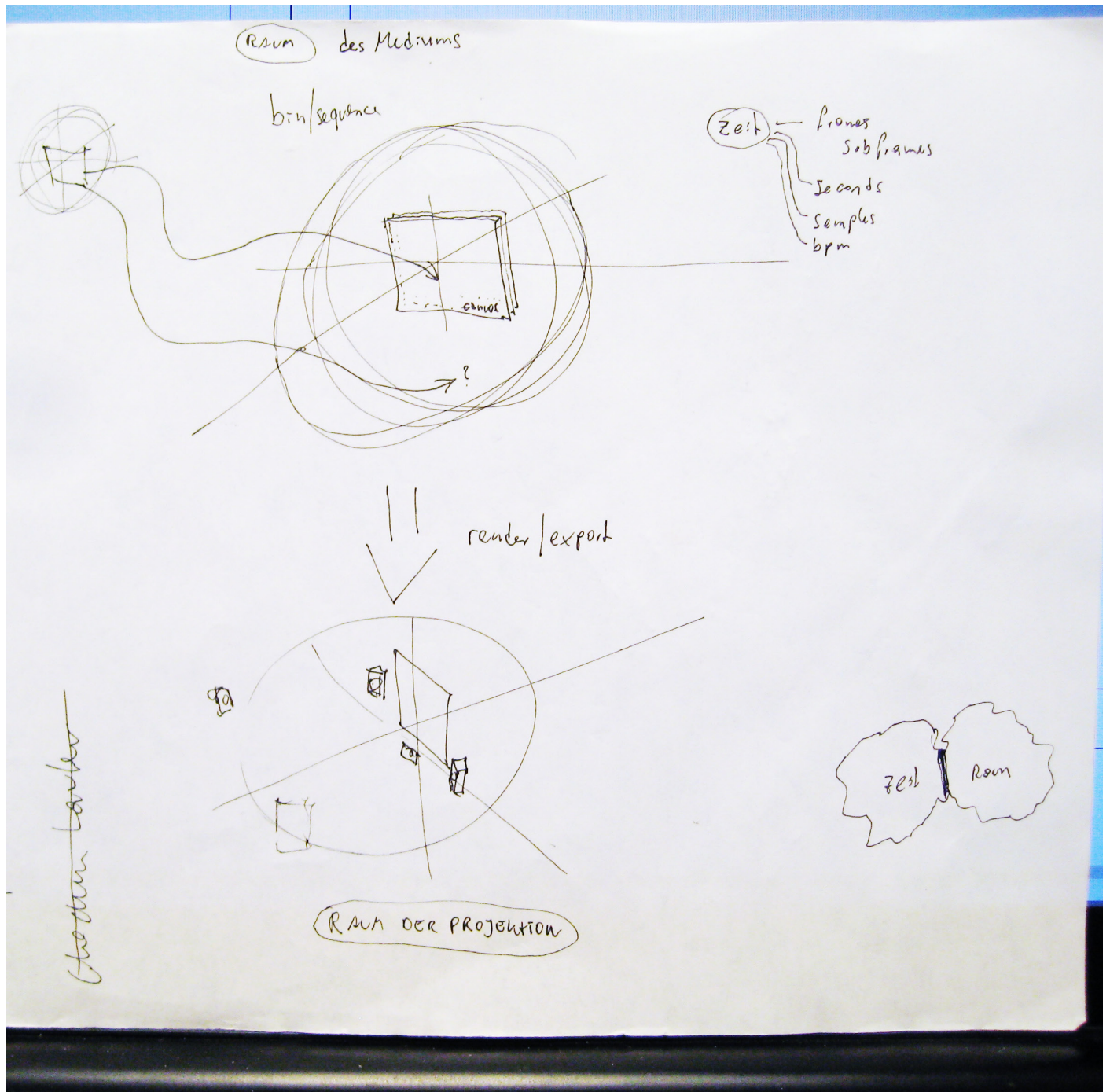permanent as long as your operation takes.

some visual try out's..
(not essential)

B

active playhead

set out
↓
goto In
↓
goto at

clear

tracks are
Permanent
visible and
Selectable

In out preview
Selective track selection
Partial

info box

Info...

Info...

01:00:05;20

01:00:05;20   01:0

Clip 47899

In/out (Marker)

Trimm

Mouse
Key tapping

Untersch.
Form, Größe,
Haptik, Reaktion
Ergonomie

marker

Set out
↓
goto In
↓
goto at

clear

tracks are
Permanent
visible and
Selectable

ADDITIONAL NOTES

Media

different file type:

source file
project
object (same type, different label)
       source clip
       folder/bin
       sequence
       clip

how to deal with media in 3D space?

i think all media files/clips should have a position in space. if you want it to
appear at a different position when importing it to a new sequence you can sim-
ply suppress the original information and reposition its new instance copy. this
should also be possible in relation to it's source position with the help of the
'meta stage'.
All the different formats (mono, stereo, 7.1, 22.1,..) will be done later with
mixdown options or live for monitoring. monitoring options are configured in the
'set-up' section.

Personal

I want you to take my ideas as inspiration and i hope to have the chance to edit
with Lumiera at some point. And maybe i recognize one or two ideas of this sheet
;)

if you have any question you can ask me per mail cm@cminusv.com

all the best,
christoph