



**Pimp  
you  
Frontend!**

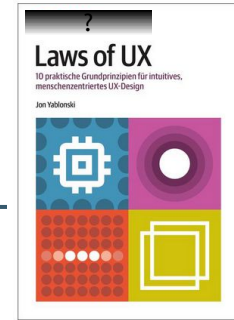
**CaptainCasa**

# CRAP Rules

- CRAP
  - Contrast
  - Repetition
  - Alignment
  - Proximity



# „10 Laws“ of UX



- „10 Laws“ of UX
  - Jakobs: „Uniformity enables concentration on content“
  - Fitts: „the smaller the button, the more difficult to hit“
  - Hick: „remove what is not required“
  - Miller: „7 +/- 2“
  - Postel: „be flexibel!“ (responsive, user input, ...)
  - Höchststand-Ende: „Bam! at the right point“
  - Schönheit: Aesthetics creates pleasure
  - Restorff: „Essential things have to be different“
  - Doherty: „> 400ms is stupid“
  - Tesler: „you cannot remove inherent complexity!“

# Hmm...

## EMAIL US

SUBMIT

Now look at this one:

|   |  |                   |
|---|--|-------------------|
| Form <b>4506-T</b><br>(September 2018)<br>Department of the Treasury<br>Internal Revenue Service  | <b>Request for Transcript of Tax Return</b><br>▶ Do not sign this form unless all applicable lines have been completed.<br>▶ Request may be rejected if the form is incomplete or illegible.<br>▶ For more information about Form 4506-T, visit <a href="http://www.irs.gov/form4506t">www.irs.gov/form4506t</a> . | OMB No. 1545-1872 |
| <b>Tip.</b> Use Form 4506-T to order a transcript or other return information free of charge. See the product list below. You can quickly request transcripts by using our automated self-help service tools. Please visit us at <a href="http://IRS.gov">IRS.gov</a> and click on "Get a Tax Transcript..." under "Tools" or call 1-800-908-9946. If you need a copy of your return, use <b>Form 4506, Request for Copy of Tax Return</b> . There is a fee to get a copy of your return. |  |                   |
| <b>1a</b> Name shown on tax return. If a joint return, enter the name shown first.  | <b>1b</b> First social security number on tax return, individual taxpayer identification number, or employer identification number (see instructions)  |                   |
| <b>2a</b> If a joint return, enter spouse's name shown on tax return.   | <b>2b</b> Second social security number or individual taxpayer identification number if joint tax return   |                   |
| <b>3</b> Current name, address (including apt., room, or suite no.), city, state, and ZIP code (see instructions)   |  |                   |
| <b>4</b> Previous address shown on the last return filed if different from line 3 (see instructions)  |  |                   |
| <b>5a</b> If the transcript or tax information is to be mailed to a third party (such as a mortgage company), enter the third party's name, address, and telephone number.  |  |                   |
| <b>5b</b> Customer file number (if applicable) (see instructions)   |  |                   |

Hmmm...



# Was wollen Sachbearbeiter?

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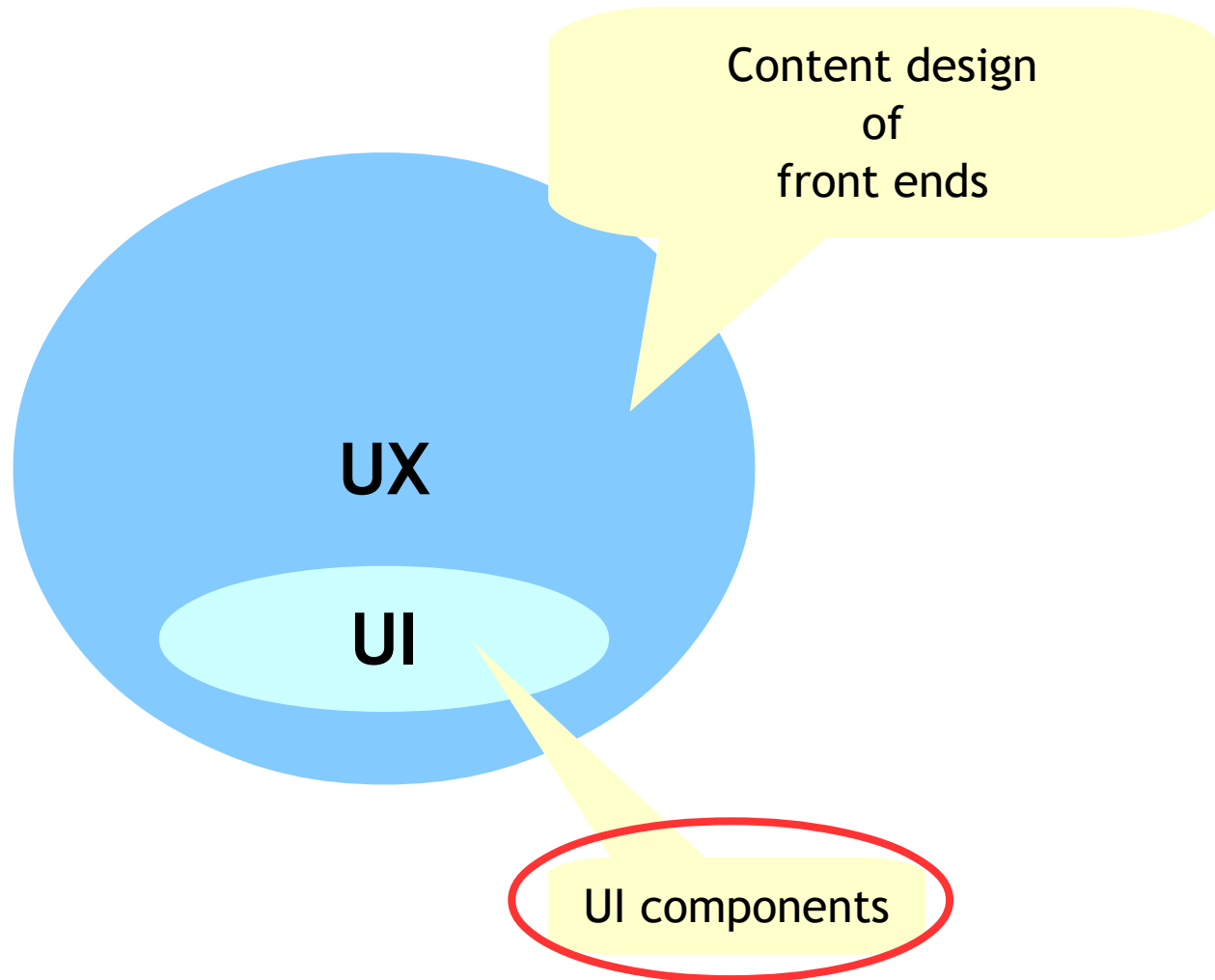
- Klares Design mit guter Lesbarkeit
- Einheitlichkeit über viele Dialoge
  - Platzierung von Controls
  - Verhalten beim Speichern
- Angemessene, übersichtlich strukturierte Informationsmengen
  - von klein bis GROOOSS!
- Flexibilität bzgl. Abläufe

# What do employee users want?

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- ...not to be annoyed!
- ...don't get eye sick!
  
- positive emotions:
  - see what they have achieved!

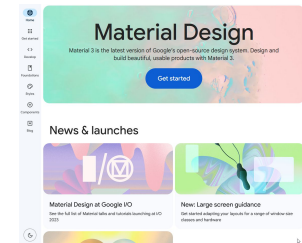
# Einordnung der folgenden Punkte





# 1 - Check your CSS style

- Do not experiment - Use!
  - <https://m3.material.io/>



- But: do not use the styling of your external web site
- But: do not follow enthusiasm of developers for a certain style

# 1 - Check your CSS style

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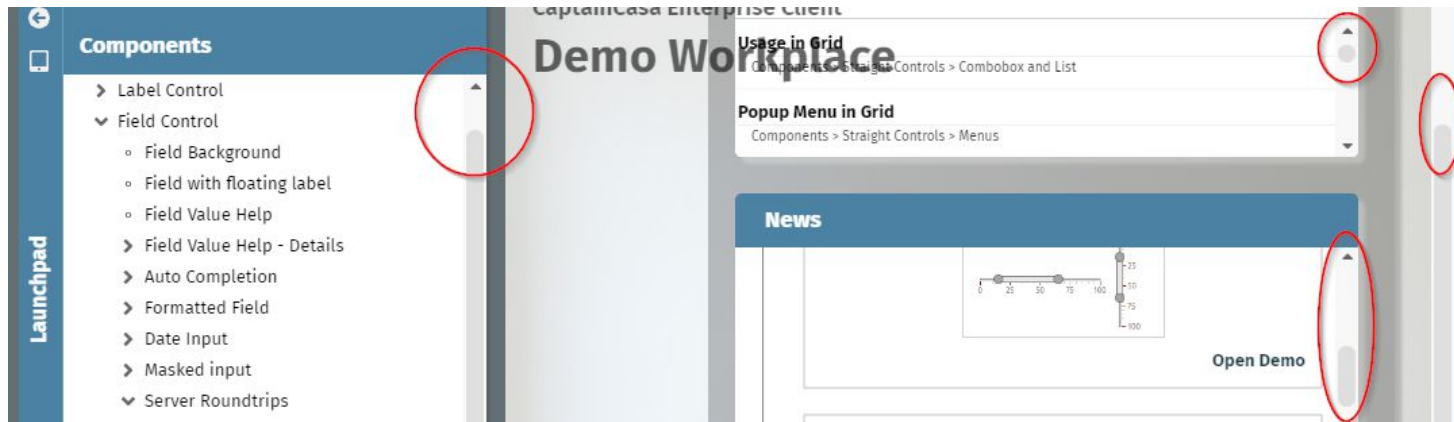
- In general: enlarge
  - font size
  - distances between controls
- In general: choose a font consciously
  - <https://fonts.google.com/> etc.
- Remove vertical lines in grids

# 1 - Check your CSS style

---

- Reduce the weight of your scroll bars
  - Designers „hate“ scroll bars
  - Users
    - „hate“ scroll bars, that are not visible
    - appreciate
      - the information of scroll bars
      - the possibility of directly scrolling to a certain position

# Scroll bar design



## 2 - [Label, Field, Button]

Search

First name  Last name

Gender  Male  Female  Diverse

Street

Street (additional)

Town

Country

Search

First name  Last name

**Gender**  
 Male  Female  Diverse

Street

Street (additional)

Zip code  Town

Country

**Guest history**

## 2 - [Label, Field, Button]

- „All in one field“
  - CRAP at its best!
  - Enormouse gain of horizontal space
  - Uniformity of dialogs
    - labels do not drive the layout anymore!

**Basic data**

|                     |                      |           |                      |
|---------------------|----------------------|-----------|----------------------|
| First name          | <input type="text"/> | Last name | <input type="text"/> |
| Zip code            | <input type="text"/> | Street    | <input type="text"/> |
| Telephone (private) | <input type="text"/> | Mail      | <input type="text"/> |

**Additional data**

|            |                      |          |                      |
|------------|----------------------|----------|----------------------|
| Weight     | <input type="text"/> |          |                      |
| Net income | <input type="text"/> | Currency | <input type="text"/> |

**Basic data**

|                     |                      |           |                      |
|---------------------|----------------------|-----------|----------------------|
| First name          | <input type="text"/> | Last name | <input type="text"/> |
| Zip Code            | <input type="text"/> | Street    | <input type="text"/> |
| Telephone (private) | <input type="text"/> | Mail      | <input type="text"/> |

**Additional data**

|            |                      |          |                      |
|------------|----------------------|----------|----------------------|
| Weight     | <input type="text"/> |          |                      |
| Net income | <input type="text"/> | Currency | <input type="text"/> |

# 3 - Discover the z-level

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- „Overlaying“ of content
  - clear reference to content
  - compact
- What happens with overlaid content?
  - Autoshow/hide
  - Moveable

## 3 - Discover the z-level

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- Use lightweight popups
  - No decoration
  - No close-icon
- Adequate for
  - Selections
  - Additional info / input
  - Jump to advanced functions



# Components

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- OVERLAYAREA
  - OVERLAYAREABASEITEM
  - OVERLAYAREAITEM
  - TPBC:MOVEABLEAREA
- SIZEANIMATIONAREA

# OVERLAYAREAITEM

- OVERLAYAREA  
OVERLAYAREAITEM
  - x,y
  - (width),(height)
- Fade in/ fade out on mouseover

# SIZEANIMATIONAREA

## Embedded in classical container

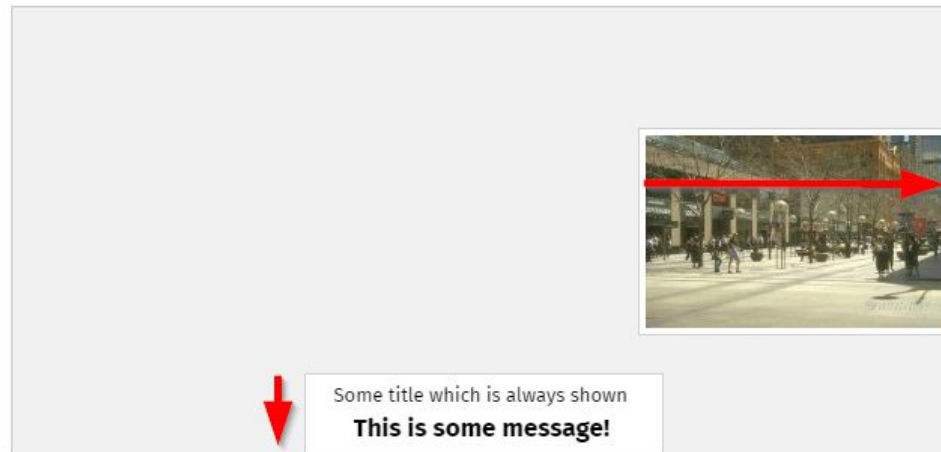


Some content on top...

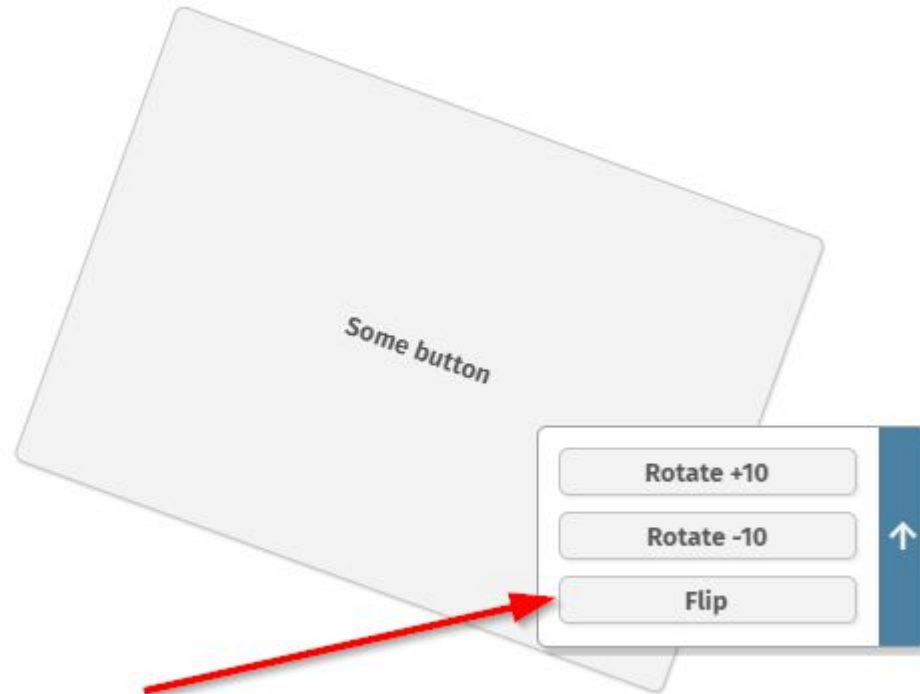
**This is some message that disappears after 2000 ms.**

Some content on bottom...

## Embedded in overlay area



# MOVEABLEAREA



## 4 - Adaptivity is not „mobile-only“

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- Different use of dialogs
  - Full screen
  - Popup dialog
  - embedded into other dialogs
- General „no go“
  - Horizontal scrolling

## 4 - Adaptivity is not „mobile-only“

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- Do not use naked SPLITPANE
  - Split pane transfers two „nicely designed dialogs“ into two „ugly dialogs“

# ADAPTIVEGRIDLAYOUTPANE

Change the size of this demo - either by resizing the whole browser window and/or by moving the split divider of the workplace.

|                              |  |                              |  |
|------------------------------|--|------------------------------|--|
| Some label                   |  | Another label with long text |  |
| Another label with long text |  |                              |  |
| Short l.                     |  | Short                        |  |
| Short                        |  |                              |  |
| Short l.                     |  | Short                        |  |
| Short l.                     |  |                              |  |
| Short                        |  |                              |  |

# 5 - Grids

---

- Use the header
  - sorting
  - filtering
  - searching
- Differentiat between „searching“ and „filtering“
  - Searching - „fuzzy“
  - Filtering - „accurate“



# 5 - Grids

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- Timer based loading of content
  - Differentiate between „Navigation“  $\Leftrightarrow$  „Selection“

# 5 - Grids

---

- „Intelligent“ Hiding
  - Highlight the important data

# 6 - Does it always have to be a grid?

- Grids are perfect for
  - Sorting
  - Filtering
  - Searchingover many data items
- Grids which only contain 3 items are ugly and consume space
  - Alternatively use
    - „One-cell“-Grids
    - „Info-Cards“
    - Other ideas of visualization („Kanban“)

# Controls

---

- DATAGRIDVIEW2
- DATAGRIDVIEW2ONECELL

# DATAGRIDVIEW2ONECELL

|                    |                  |                |         |
|--------------------|------------------|----------------|---------|
| <b>AJ</b><br>155 ✓ | <b>Adams</b>     | <b>Jacob</b>   | MALE    |
| <b>AB</b><br>166 ✓ | <b>Aguirre</b>   | <b>Barbara</b> | DIVERSE |
| <b>AS</b><br>168 ✓ | <b>Allen</b>     | <b>Stacy</b>   | MALE    |
| <b>AN</b><br>160 ✓ | <b>Armstrong</b> | <b>Nicole</b>  | MALE    |
| <b>AP</b><br>162   | <b>Armstrong</b> | <b>Patrick</b> | FEMALE  |
| <b>AS</b><br>177   | <b>Armstrong</b> | <b>Sherri</b>  | FEMALE  |
| <b>BR</b><br>190 ✓ | <b>Barron</b>    | <b>Robert</b>  | MALE    |
| <b>BG</b><br>155 ✓ | <b>Bean</b>      | <b>Gregory</b> | MALE    |

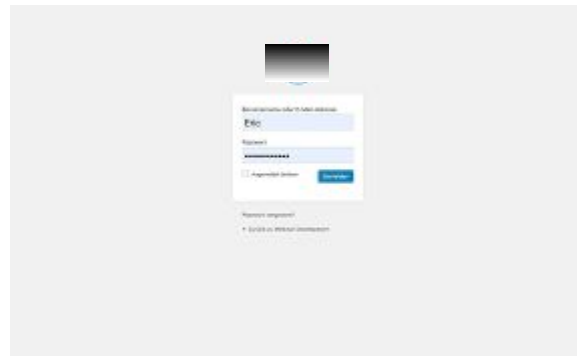
# Simple Pivot - Hiding Values



| Date           |         |        | 2020-04-01 |            | 2020-04-02 |           | 2020-04-03 |           |            |           |
|----------------|---------|--------|------------|------------|------------|-----------|------------|-----------|------------|-----------|
| Social status  |         |        |            |            |            |           |            |           |            |           |
| Country        | Region  | Gender | Σ infected | Σ clean    | Σ infected | Σ clean   | Σ infected | Σ clean   | Σ infected | Σ clean   |
|                |         |        | 13,575,194 | 40,067,774 | 467,489    | 1,359,596 | 436,671    | 1,305,210 | 438,106    | 1,379,351 |
| Canada         |         |        | 2,678,457  | 8,080,080  | 85,641     | 263,253   | 80,446     | 289,418   | 83,082     | 284,749   |
| France         |         |        | 2,731,201  | 8,039,094  | 91,673     | 295,143   | 93,891     | 236,570   | 93,826     | 226,518   |
|                | Central |        | 542,915    | 1,621,878  | 20,260     | 56,986    | 22,397     | 53,967    | 20,051     | 53,084    |
|                | East    |        | 554,054    | 1,575,167  | 18,064     | 42,961    | 22,762     | 63,603    | 21,471     | 50,698    |
|                | North   |        | 554,992    | 1,571,185  | 18,258     | 51,597    | 13,913     | 34,938    | 15,702     | 49,580    |
|                | South   |        | 541,011    | 1,630,180  | 17,137     | 79,118    | 15,413     | 41,689    | 19,719     | 34,421    |
|                | West    |        | 538,229    | 1,640,684  | 17,954     | 64,481    | 19,406     | 42,373    | 16,883     | 38,735    |
| Germany        |         |        | 2,728,482  | 7,933,061  | 92,567     | 293,609   | 81,758     | 281,756   | 86,009     | 281,665   |
|                | Central |        | 573,924    | 1,637,457  | 26,323     | 54,758    | 16,649     | 48,807    | 19,781     | 52,426    |
|                | East    |        | 515,103    | 1,558,940  | 19,087     | 49,470    | 15,302     | 52,931    | 17,374     | 54,824    |
|                | North   |        | 551,406    | 1,565,173  | 10,551     | 61,553    | 18,706     | 49,209    | 16,289     | 47,690    |
|                | South   |        | 555,109    | 1,562,654  | 18,294     | 71,290    | 12,653     | 63,912    | 19,192     | 57,722    |
|                | West    |        | 532,940    | 1,608,837  | 18,312     | 56,538    | 18,448     | 66,897    | 13,373     | 69,203    |
| United Kingdom |         |        | 2,751,043  | 8,219,026  | 98,928     | 269,485   | 84,097     | 232,807   | 89,890     | 276,257   |
| United States  |         |        | 2,686,011  | 7,796,513  | 98,680     | 238,106   | 96,479     | 264,659   | 85,299     | 310,162   |

# 7 - First page

- It's trivial, but...
  - The logon page is the first page to „unpack“ your application



- Use
  - Start-up in two phases

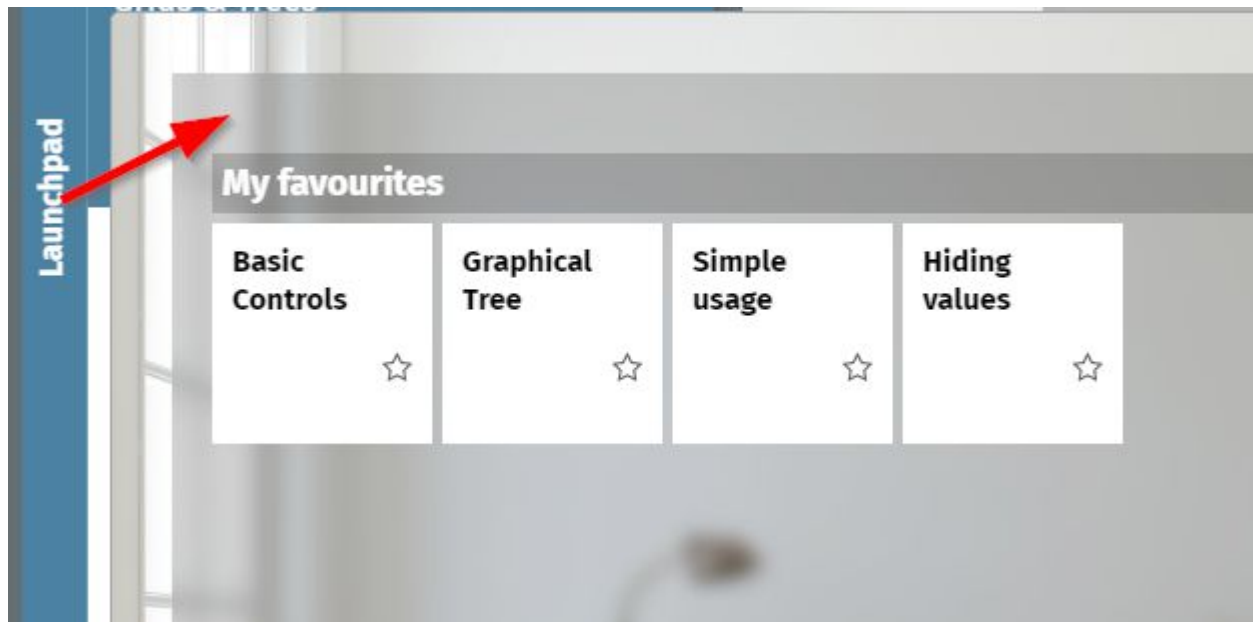
# 8 - Workplace

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- Workplace
  - central instance of control
  - framing around „boring content“
- Users do not like browser tabs
  - but like to stay within the context of the application
  - exception: working on >1 physical screens

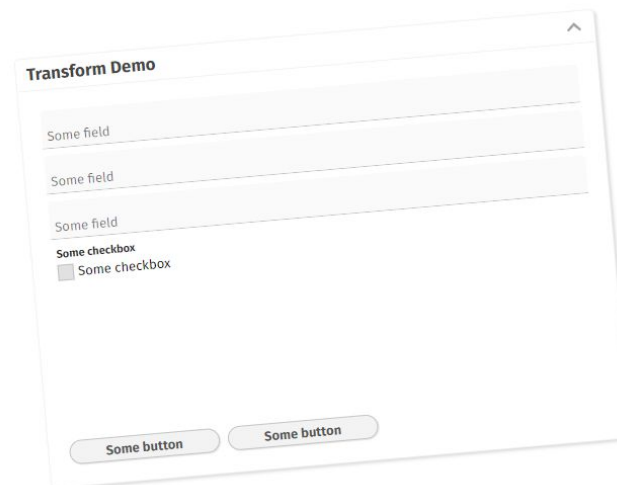
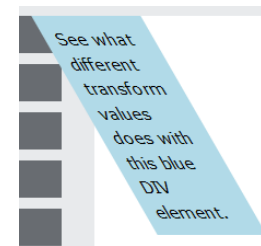
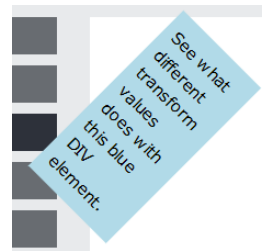


# Modal/Modeless Popup - Change of „closeOnClickOutside“ at runtime



# 9 - Transformations

- Scale
- Rotate
- Skew
- 2D / 3D
  
- Well...



- „Scale“ is the most use-able one

# 10 - Animations

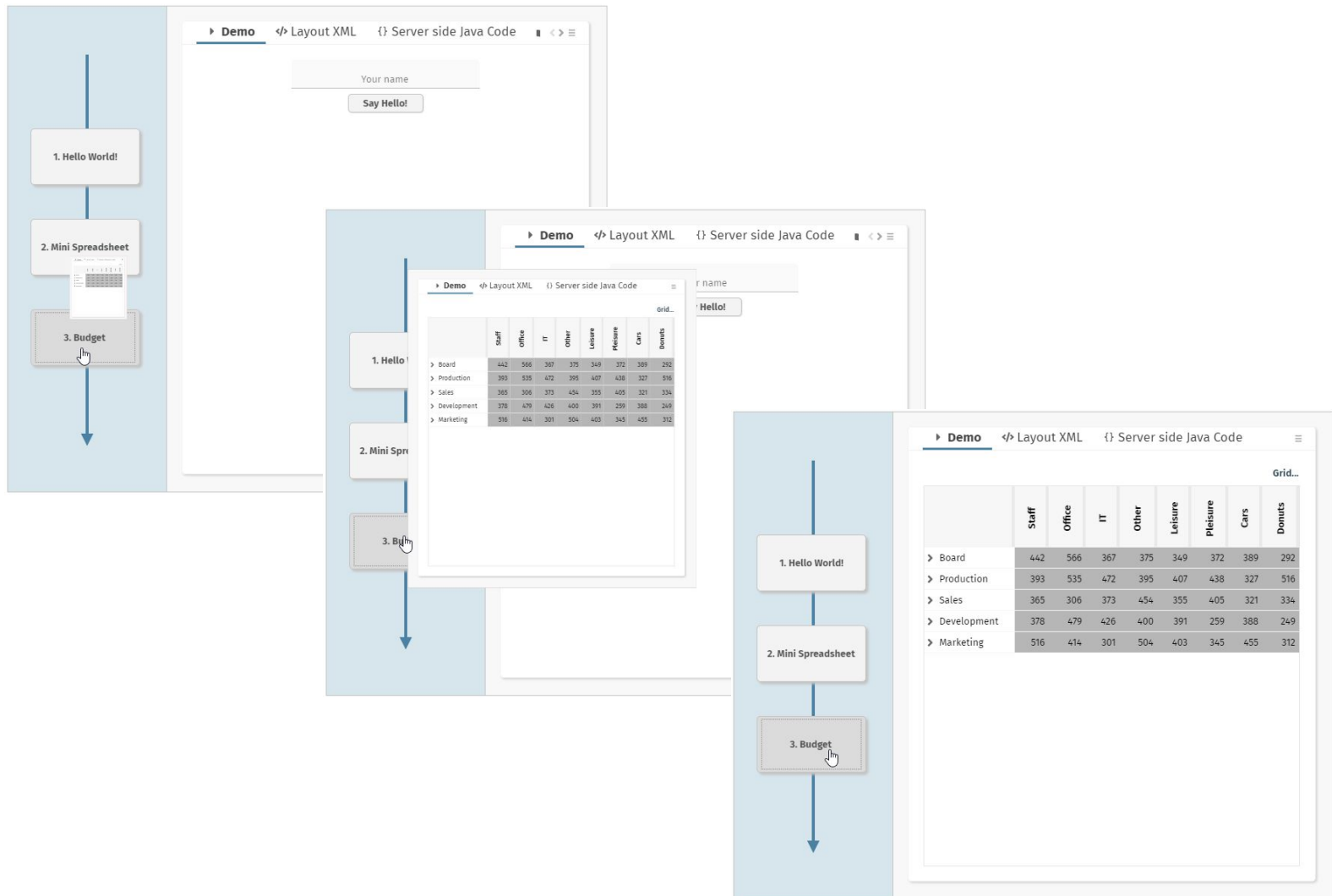
---

- Purpose
  - Any change can/ should/ must be animated
- Types
  - Color animations
    - Opacity
    - Shading
  - Shape animations
    - Moving
    - Rotations / ...

# 10 - Animations

- „Risk“
  - Color animations
    - Are „OK“ always
      - both from user acceptance
      - and from specs point of view
    - Are „sufficient“ in many cases
  - Moving
    - Are „OK“ always
  - Rotations / ...
    - Performance must be adequate
    - Must be consistent

# FLYINGCONTENTAREA



# CUBEROTATOR

**General data**

Title  
Prof.

First name  
Melissa

Last name  
Stone

**Body measures** Certificates Mail

Weight  
85

Height  
178

**Company data**

Department  
Management

# 3D Rotation in Workplace

The screenshot displays the CaptainCasa Workplace application. On the left is a 'Launchpad' menu with various demo icons. The main area features a 'Room reservation' window with a table of financial data. To the right is a 'Guest' form and a 'Room Types' calendar. The bottom navigation bar shows the current active window.

| Revenue      | Cost         | Profit       |
|--------------|--------------|--------------|
| 181.633,00   | 8.358,00     | 173.275,00   |
| 452.826,00   | 12.948,00    | 439.878,00   |
| 165.612,00   | 276.559,00   | -110.947,00  |
| 658.257,00   | 929.662,00   | -271.405,00  |
| 805.082,00   | 834.284,00   | -29.202,00   |
| 426.264,00   | 83.530,00    | 342.734,00   |
| 812.678,00   | 452.977,00   | 359.701,00   |
| 923.170,00   | 348.335,00   | 574.835,00   |
| 80.555,00    | 973.356,00   | -892.801,00  |
| 553.834,00   | 561.345,00   | -7.511,00    |
| 575.234,00   | 246.498,00   | 328.736,00   |
| 903.166,00   | 519.761,00   | 383.407,00   |
| 6.538.313,00 | 5.247.613,00 | 1.290.700,00 |

```
public Dispatcher()
{
    super();
    ...
    getWorkpageContainer().setWithCubeRotation(true);
    ...
}
```

# ROTATECONTENTAREA

| Title    | First name | Last name  | Department        |
|----------|------------|------------|-------------------|
| Prof.    | Linda      | Vargas     | Warehouse         |
| Princess | Vincent    | Miller     | Sales             |
| Prof.    | Sean       | Thompson   | Management        |
| Dr.      | Denise     | Friedman   | Quality Assurance |
| Prince   | Natasha    | Williams   | Controlling       |
| Prince   | Brandon    | Weber      | Sales             |
| Dr.      | Jorge      | Hoover     | Controlling       |
| Prince   | Timothy    | Kline      | Quality Assurance |
| Prince   | Parker     | Watkins    | Quality Assurance |
| Prince   | Sherry     | Baird      | Management        |
| Princess | Melissa    | Sanchez    | Production        |
| Prof.    | Sarah      | Odonnell   | Controlling       |
| Dr.      | Joseph     | Carr       | Production        |
| Prof.    | Shane      | Mooney     | Controlling       |
| Prince   | Vickie     | Mckenzie   | Controlling       |
| Princess | Devin      | Gonzalez   | Quality Assurance |
| Dr.      | Miranda    | Perez      | Quality Assurance |
| Dr.      | Gilbert    | Hendrix    | Warehouse         |
| Prof.    | Scott      | Salas      | Controlling       |
| Dr.      | Paul       | Rodriguez  | Controlling       |
| Dr.      | Tiffany    | Brown      | Controlling       |
| Prince   | Charles    | Thompson   | Management        |
| Prof.    | Ruth       | Jimenez    | Controlling       |
| Prof.    | Gary       | Wilson     | Production        |
| Dr.      | Samuel     | Howard     | Sales             |
| Prof.    | Ryan       | Reeves DDS | Sales             |
| Princess | James      | Hendrix    | Production        |



## General data

Title  
Dr.

First name  
Jorge

Last name  
Hoover

## Body measures

Weight  
72

Height  
176

## Company data

Department  
Controlling

## Comment

Comment





# Some technology issues

# Technical complexity of animations

- In principal... - simple!

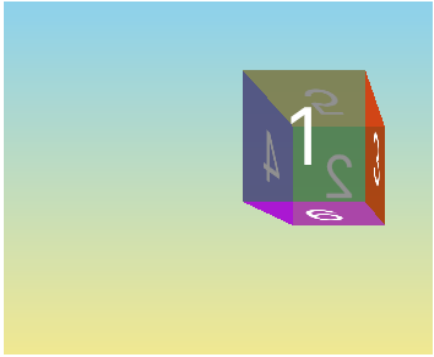
CSS Demo: translate3d() RESET

```
transform: translate3d(0);
```

```
sform: translate3d(42px, -62px, -135);
```

```
transform: translate3d(-2.7rem, 0,
```

```
transform: translate3d(5ch, 0.4in,
```



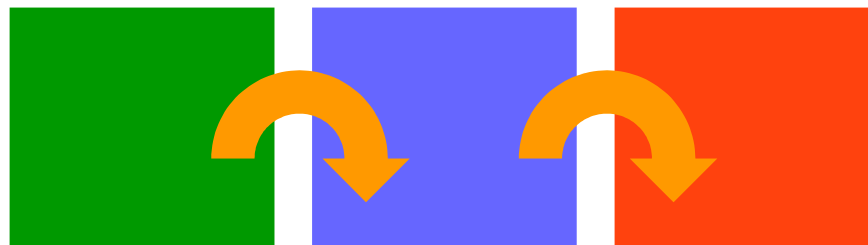
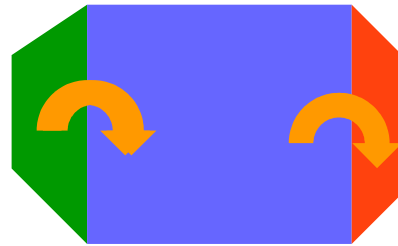
This transformation is characterized by a three-dimensional vector. Its coordinates define how much the element moves in each direction.

## Syntax

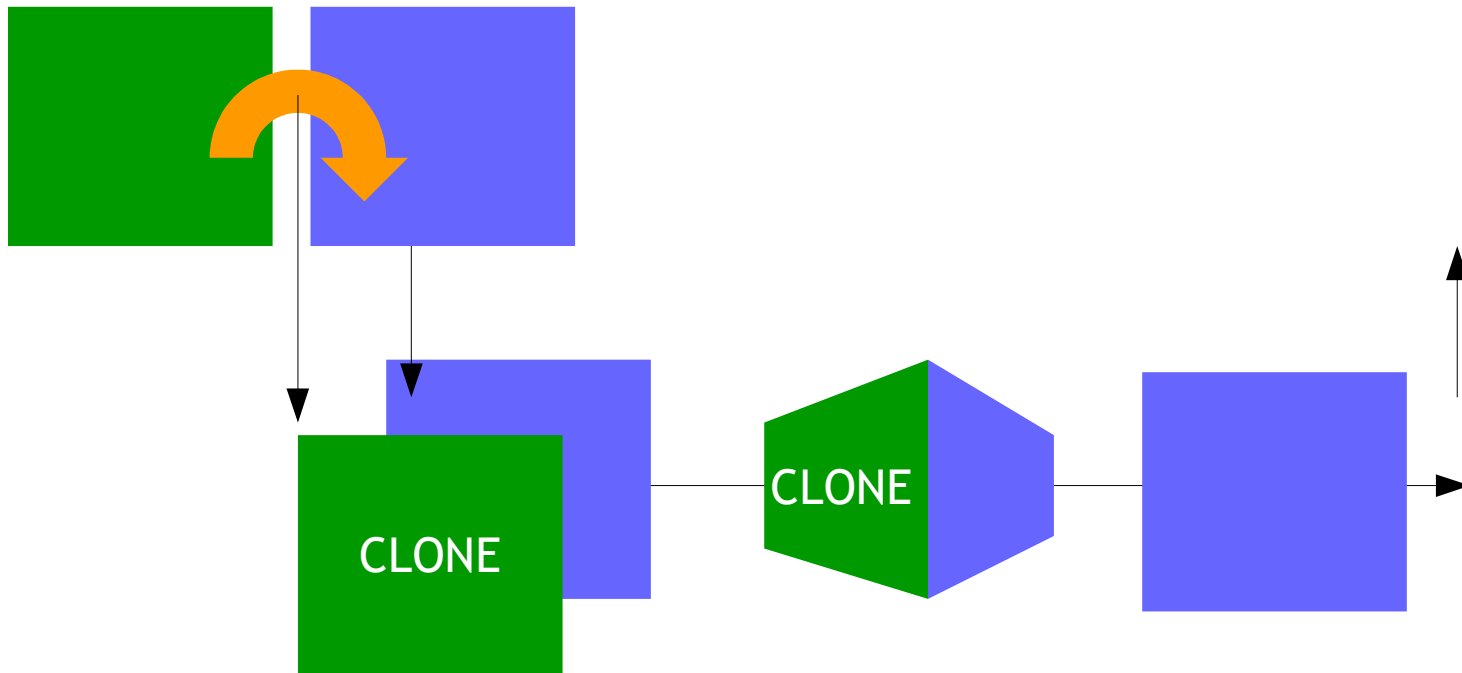
```
translate3d(tx, ty, tz)
```

# Technical complexity of animations

- But: this is not the way applications are built
  - One area in focus only!



# Technical complexity of animations



# Components

---

- PANE  
**CAPTUREANIMATOR**
- **CUBEROTATOR**

**Instead of  
summary**

# Believe it - or not

---

- Do not believe
  - Business application users don't want nice dialogs
  - Animations disturb users!
  - Functional is enough!
- Believe
  - Application developers certainly have problems jumping over their own shadow! ;-)
    - „Don't behave shy!“