



JavaFX im UI-Technologiedschungel



Guten Tag, Hallo, Servus!

- Björn Müller
 - SAP, AJAX, Swing, JavaFX
- Seit 2007 CaptainCasa Community
 - Swing für Unternehmensanwendungen
 - Seit 2012: JavaFX für Unternehmensanwendungen



© Karsten Lentzsch



JAVA Swing



JAVA FX



HTML5



Im Jahre 2007



JAVA Swing



JAVA FX



HTML5

Wahl von Java Swing
für
Unternehmensanwendungen





Java Swing

Java FX



HTML



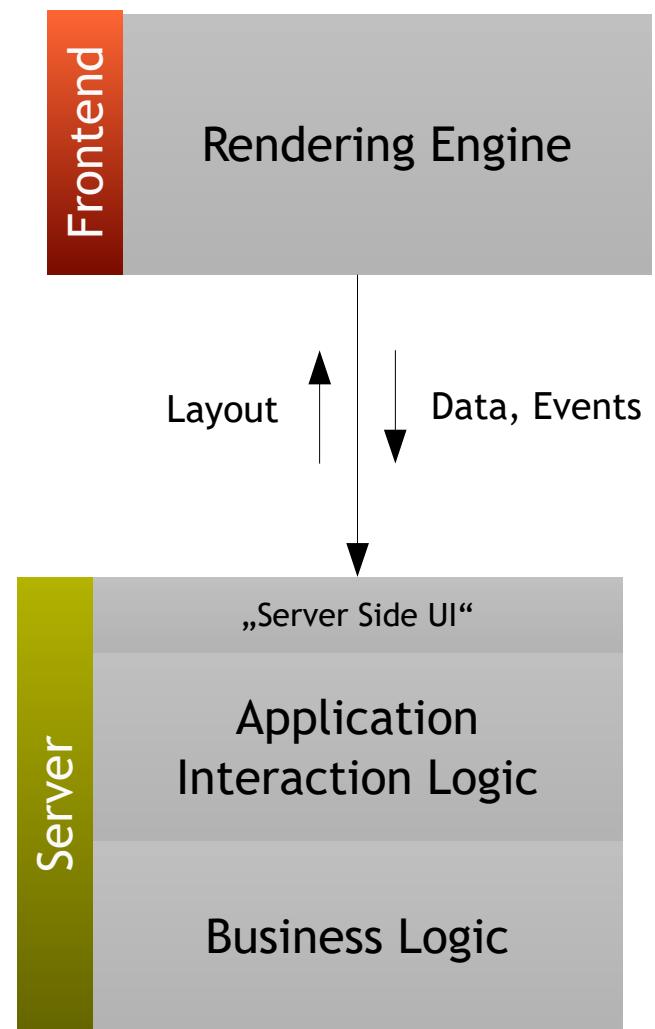
WJAX 2015

JAX 2015

JAX 2016



CaptainCasa Architektur



CaptainCasa Framework Focus

- ...UI Framework für umfangreiche, langlebige Unternehmensanwendungen...
- ...Sachbearbeiter-Frontends...





And the winner is...



Client side Development Comfort

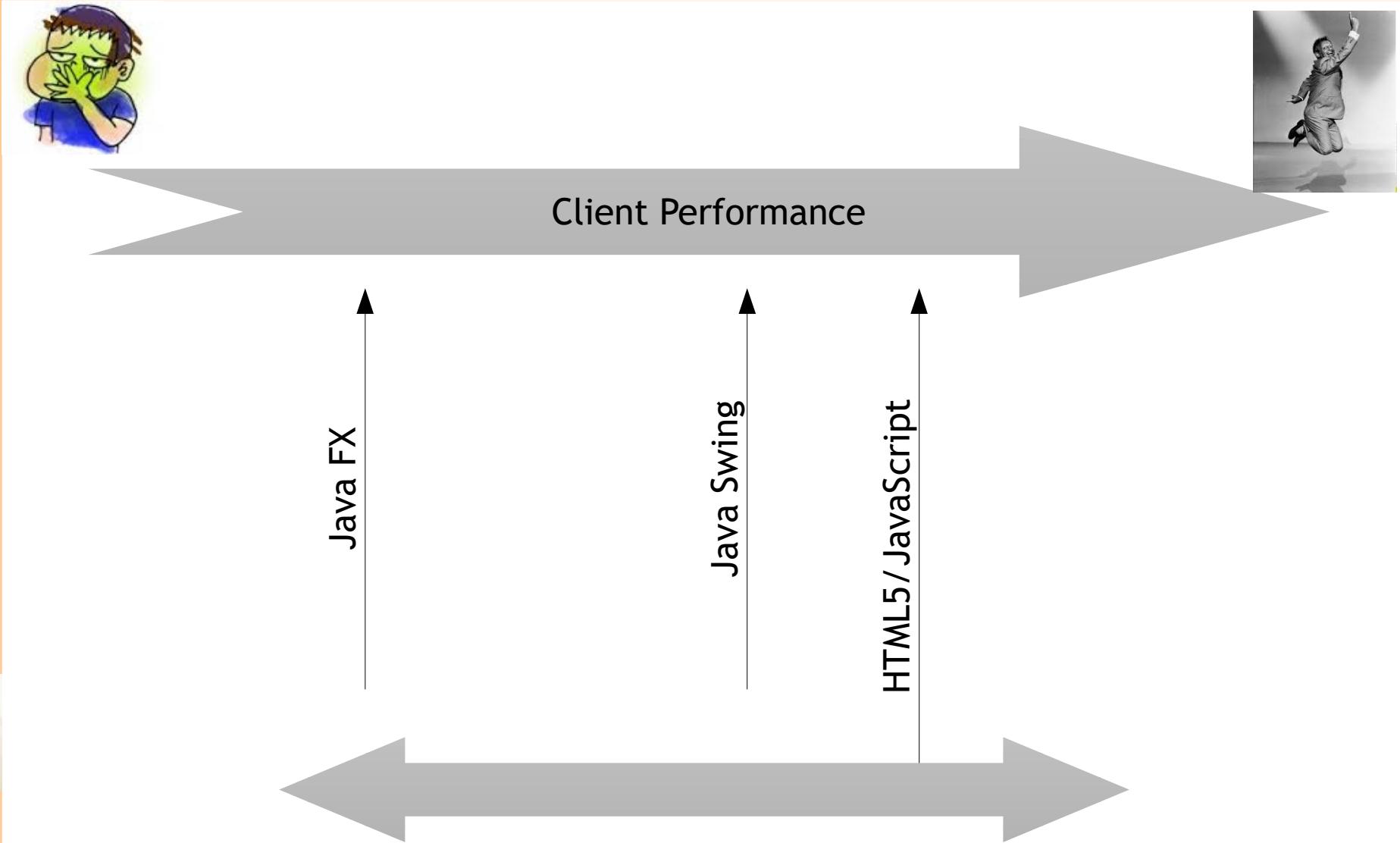
HTML5 / JavaScript

Java Swing

Java FX



And the winner is...



And the winner is...



Installation Effort on Client Side



And the winner is...



Cross Device

Java Swing
Java FX

HTML5 / JavaScript



And the winner is...



Mainstream



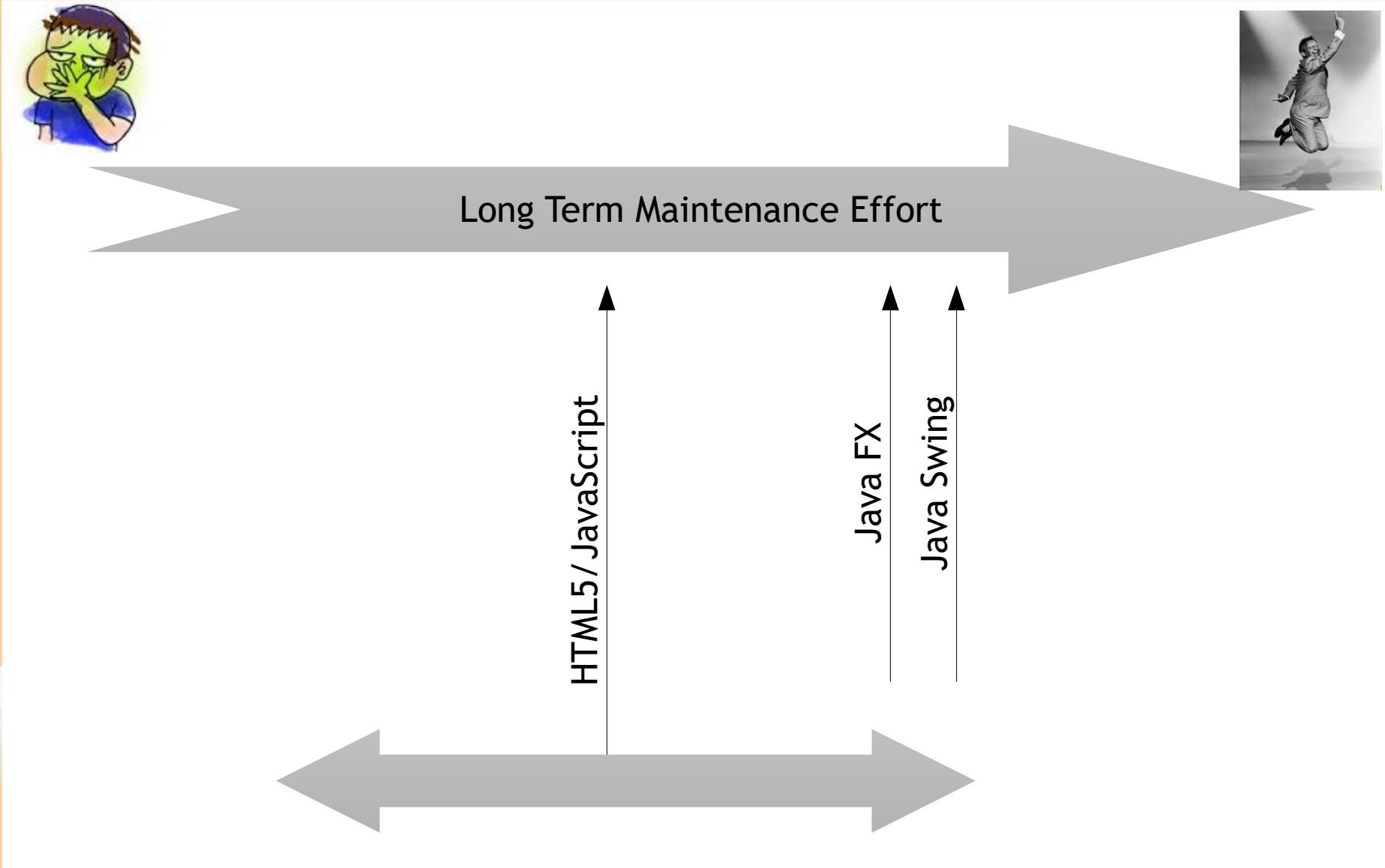
Java Swing

HTML5 / JavaScript



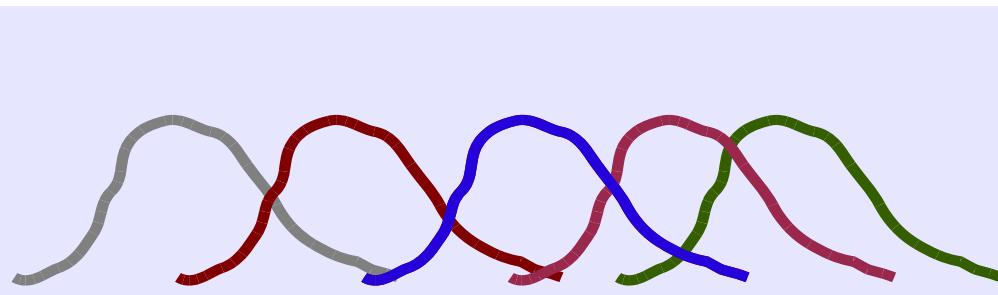
Java ↗

And the winner is...

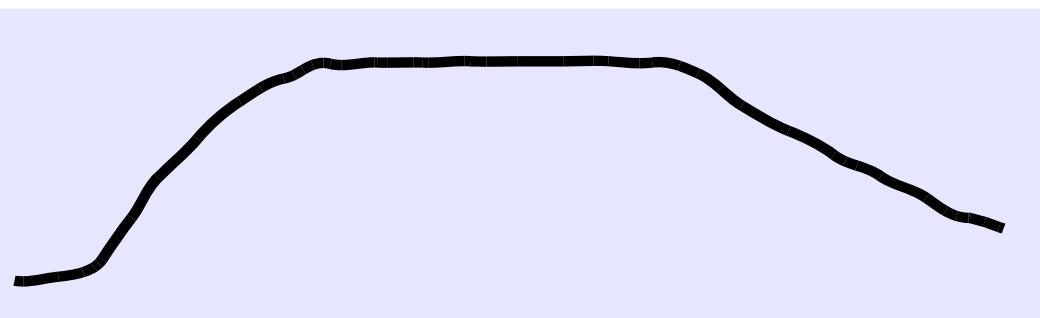




Web UI Hypes



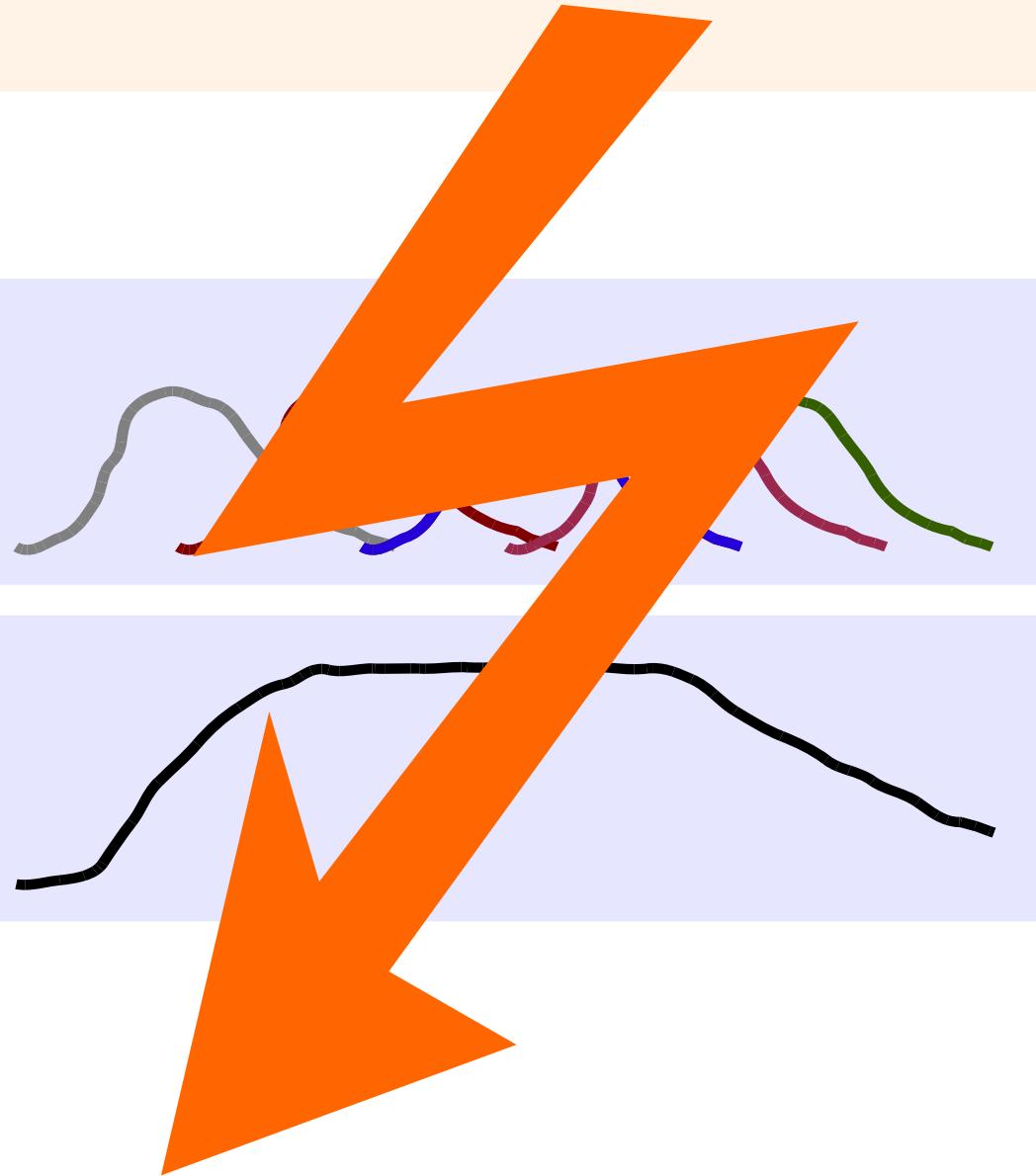
Bus. Application
Life cycle



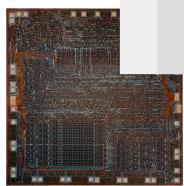
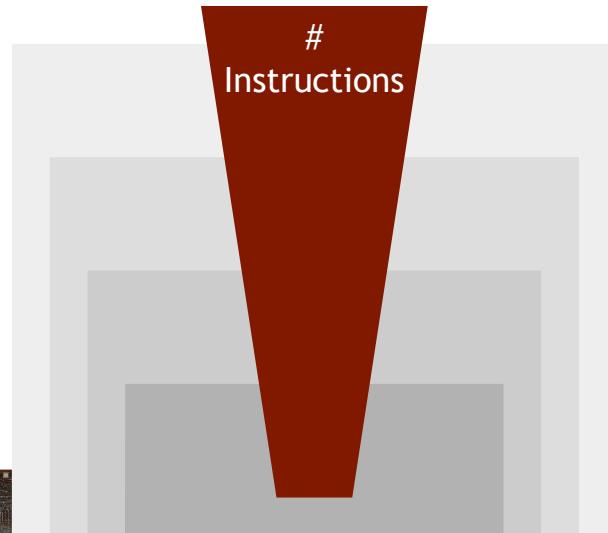


Web UI Hypes

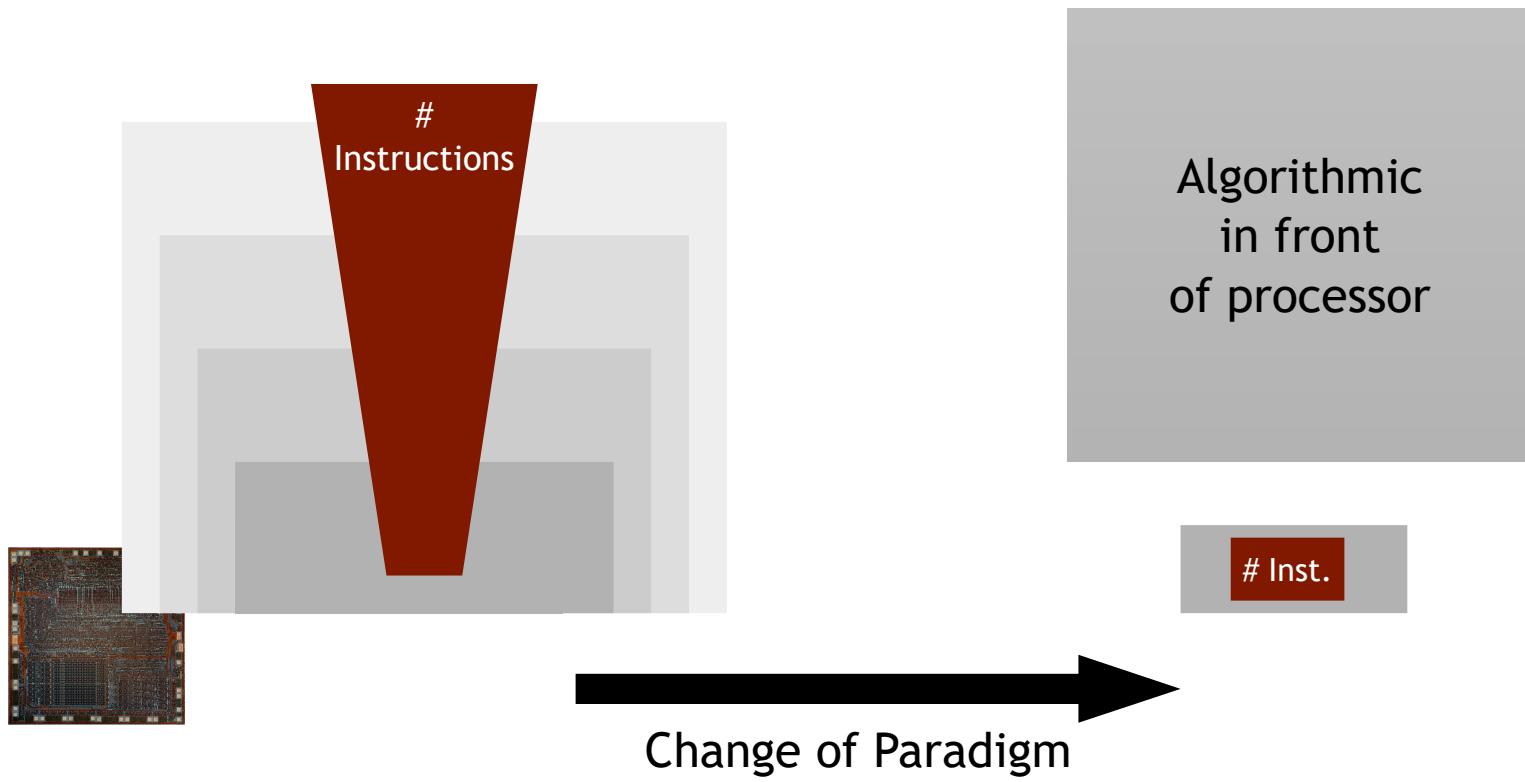
Bus. Application
Life cycle



Back to the 80s/90s



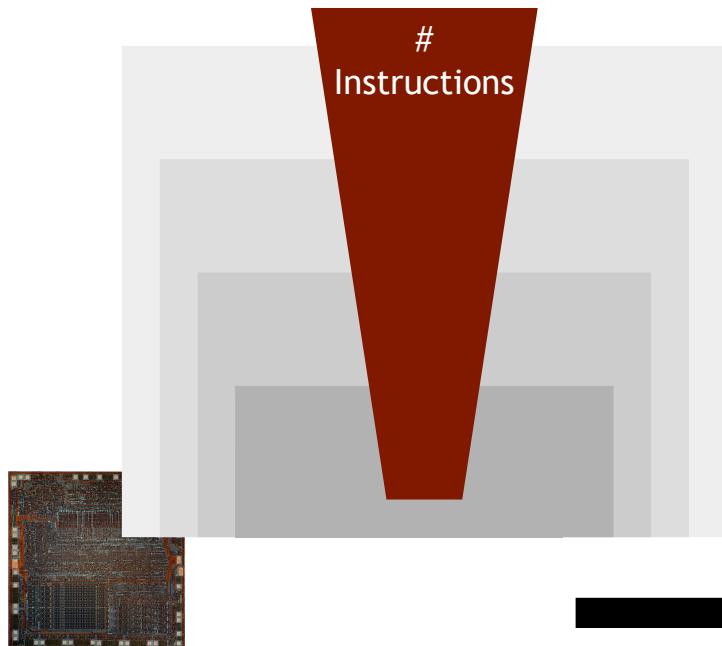
Back to the 80s/90s



Back to the 80s/90s

Complex Instruction Set
Computers
CISC

Reduced Instruction Set
Computers
RISC

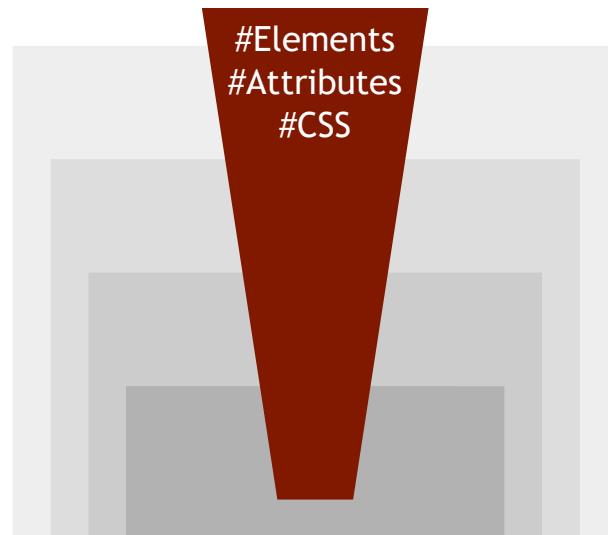


Algorithmic
in front
of processor

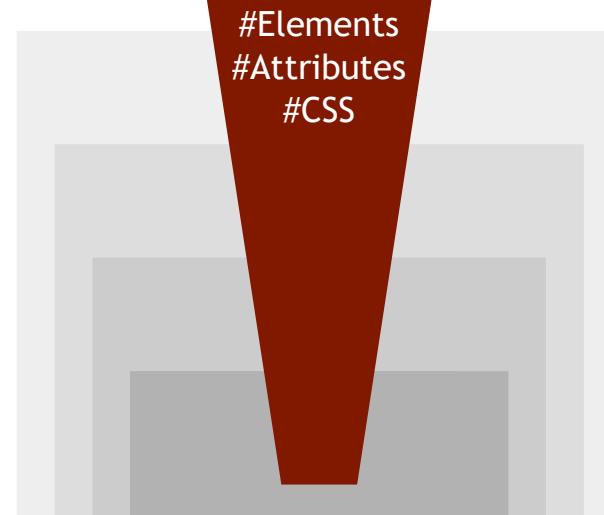
Inst.

Change of Paradigm

Browser History



Browser History



Browser History

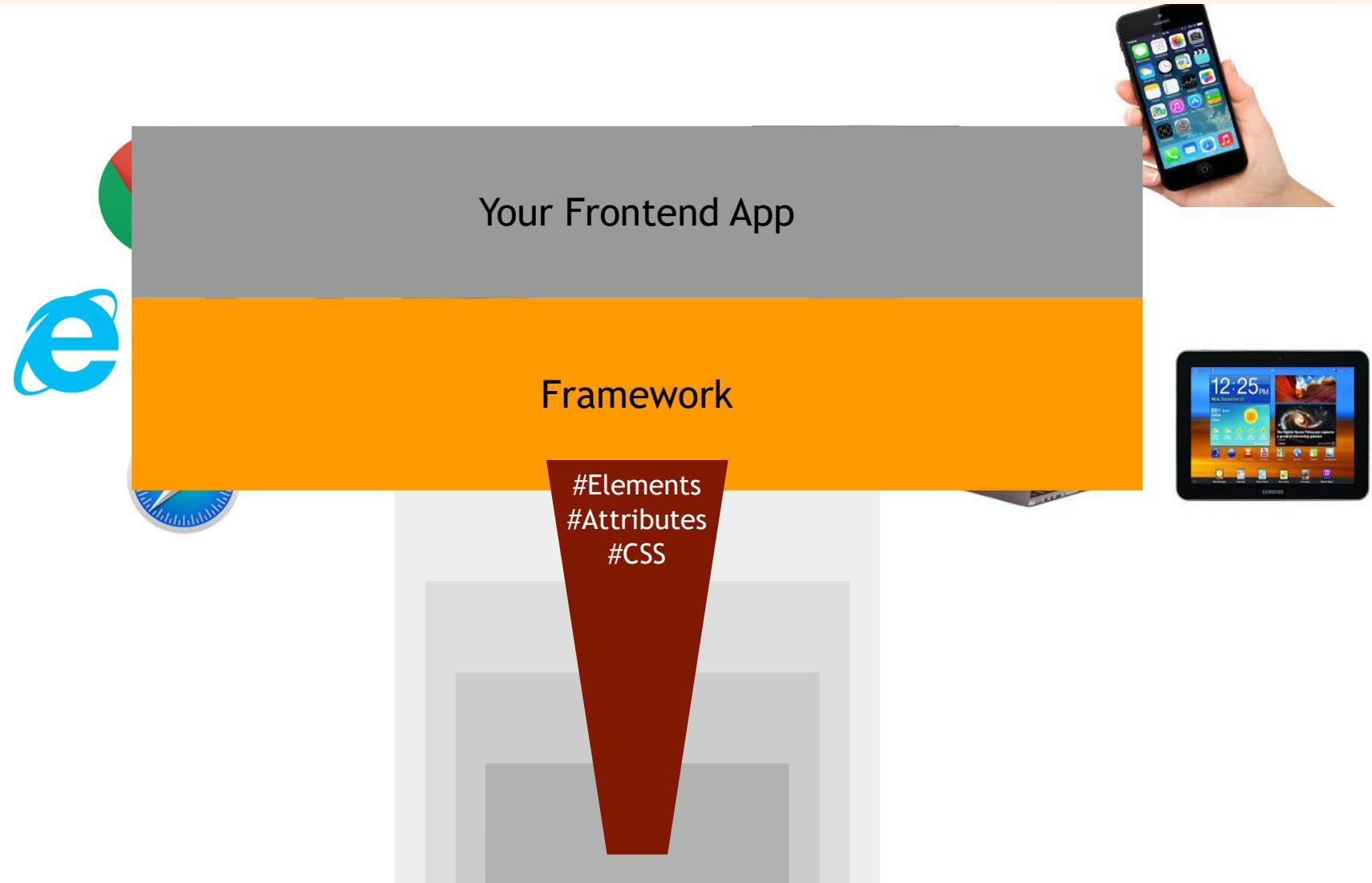
Suffering

„Zero Installation!“
„...endless Maintenance“

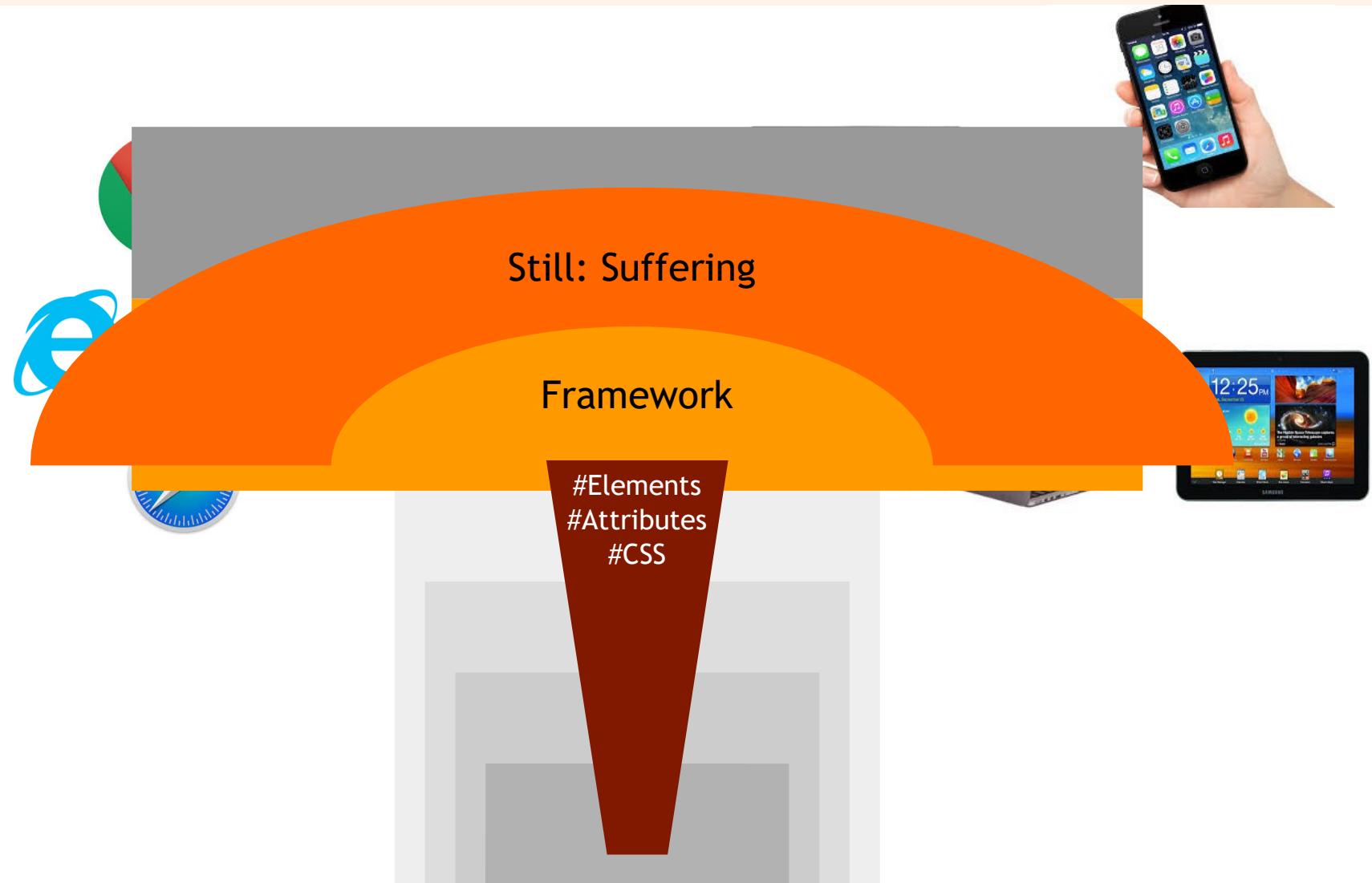
#Elements
#Attributes
#CSS



Traditional Framework Approach



Traditional Framework Approach



Traditional Framework Approach

KONTROLLVERLUST!



What's about ...



What's about ...

...a Change of Paradigm?



Take the
RISC!

The screenshot displays the RISC Client application interface, specifically the 'workplaceMetroFX.risc' demo. The left sidebar shows a navigation tree with categories such as Components, Containers, Grids & Trees, General, and Add-ons. The main area features several tabs and components:

- Grid with Details**: A grid showing data for articles with columns for Article Id, Unit of Measure, Stock Area, and Supp.
- Basic Controls**: A panel showing examples of Field, Checkbox, Radio Button, and Text Area controls.
- Tree with checkbox**: A tree view showing a hierarchy of Country, Town, and Ort levels.
- Simple Example**: A matrix dashboard showing sales data for Food and Non Food items across different regions.

What are the basic elements that any user interface can be built with?



CaptainCasa - RISC Client

localhost:8080/demos/workplace.workplaceMetroFX.risc?ccstyle=defaultrisc

Components

- Some simple examples
 - Hello World!
 - Mini Spreadsheet
 - Demo Budget
- Straight Controls
 - Basic Controls
 - Label Control
 - Field Control
 - Invokers
 - Combo Box and List
 - Text Input/Output
 - Check Box & Radio Button
 - Images
 - Value Representation
 - Enabled/ Disabled
 - Menus
 - Hot Keys
 - Structure Components
 - File Up/Download
 - Drag & Drop
 - Statusbar
 - Open Street Map
 - Client Clock
- Scheduling
- Containers
- Grids & Trees
- General
- Add-ons

Grid with Details

Basic Controls

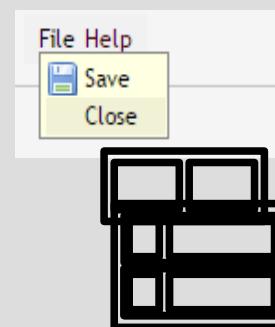
1. Rectangles
 - with/without text
 - with/without background styling

2. TextInput
 - single line
 - multi line

(3. Graphics)

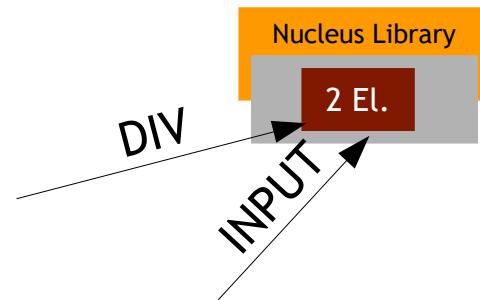
...and the possibility to

- position them absolutely (x,y,width,height(,z))
- compose them



Region	Revenue	Cost	Profit
North	0,00	0,00	0,00
East	0,00	0,00	0,00
South	0,00	0,00	0,00
West	0,00	0,00	0,00
North	0,00	0,00	0,00
East	0,00	0,00	0,00
South	0,00	0,00	0,00
West	0,00	0,00	0,00
North	0,00	0,00	0,00
East	0,00	0,00	0,00
South	0,00	0,00	0,00
West	0,00	0,00	0,00
North	0,00	0,00	0,00
East	0,00	0,00	0,00
South	0,00	0,00	0,00
West	0,00	0,00	0,00
North	0,00	0,00	0,00
East	0,00	0,00	0,00
South	0,00	0,00	0,00
West	0,00	0,00	0,00

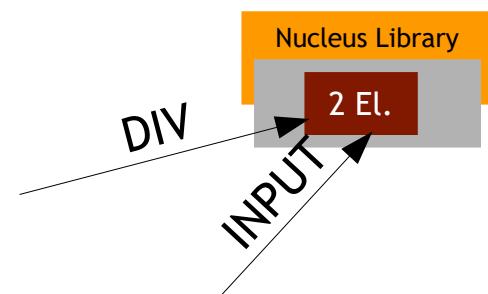
RISC Browser Architecture



RISC Browser Architecture

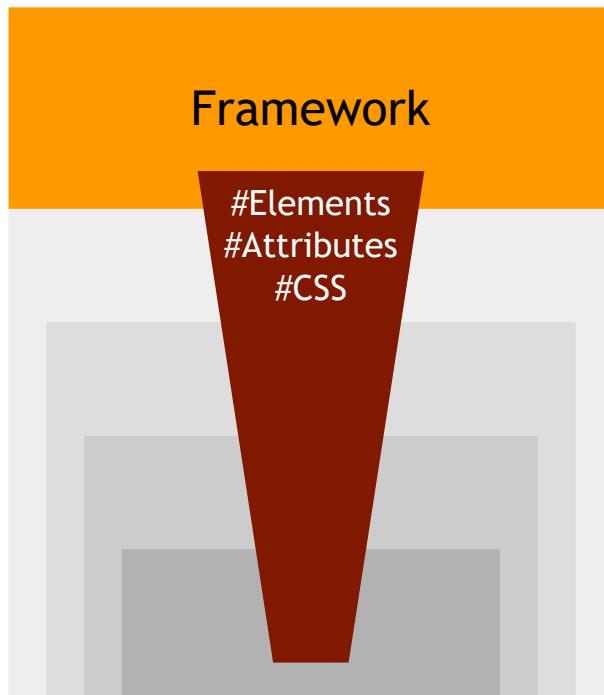
Reduced Instruction Set
Client
RISC

UI Element Library
Based
On
Nucleus Elements

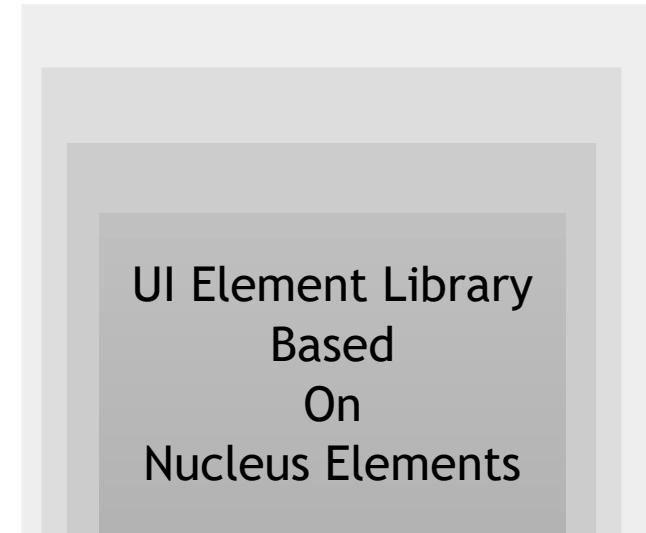


RISC Browser Architecture

Complex Instruction Set
Client
CISC



Reduced Instruction Set
Client
RISC



Change of Paradigm

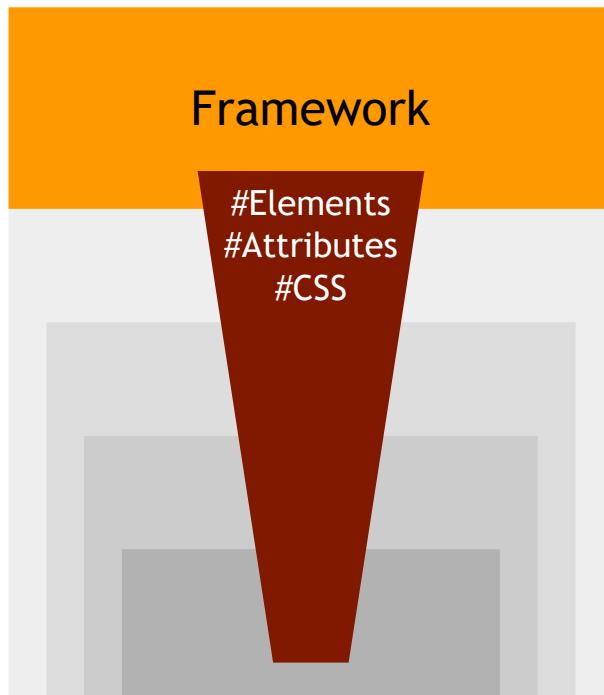
DIV

INPUT

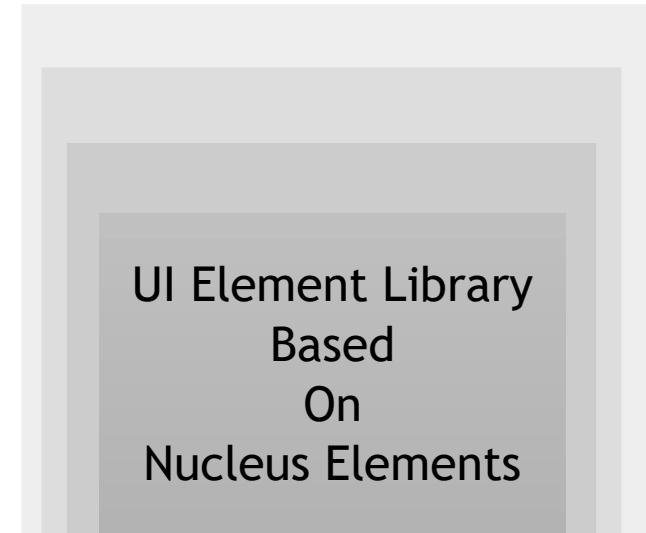


RISC Browser Architecture

Complex Instruction Set
Client
CISC



Reduced Instruction Set
Client
RISC

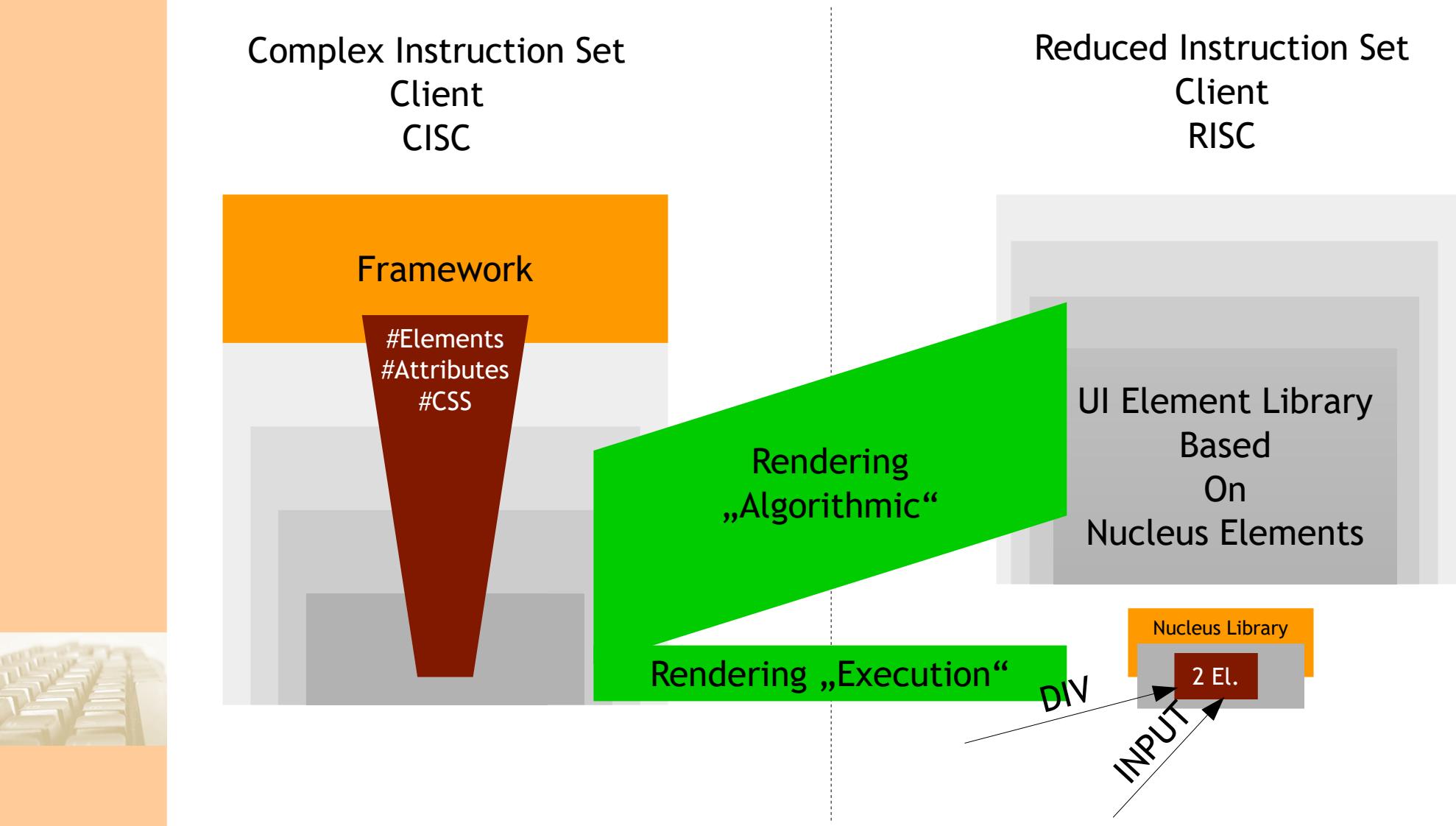


Change of Paradigm

DIV

INPUT

RISC Browser Architecture

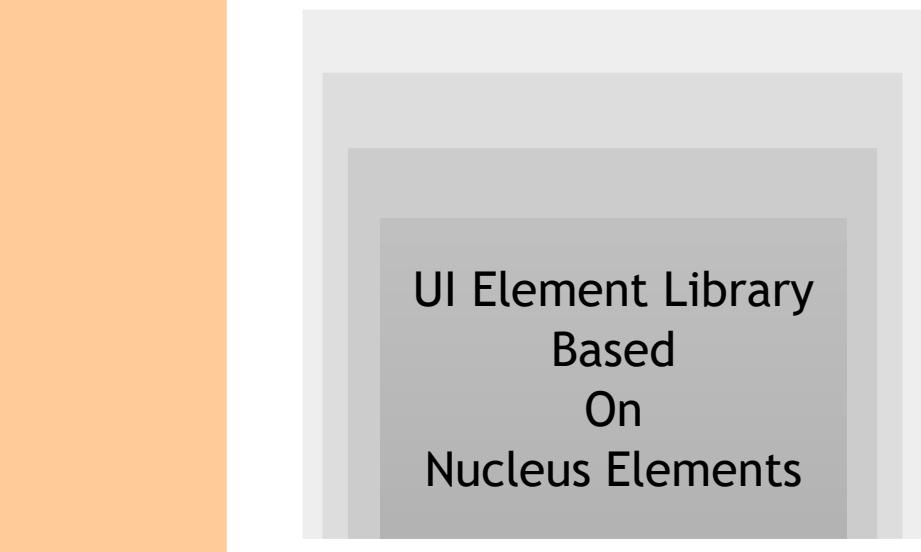




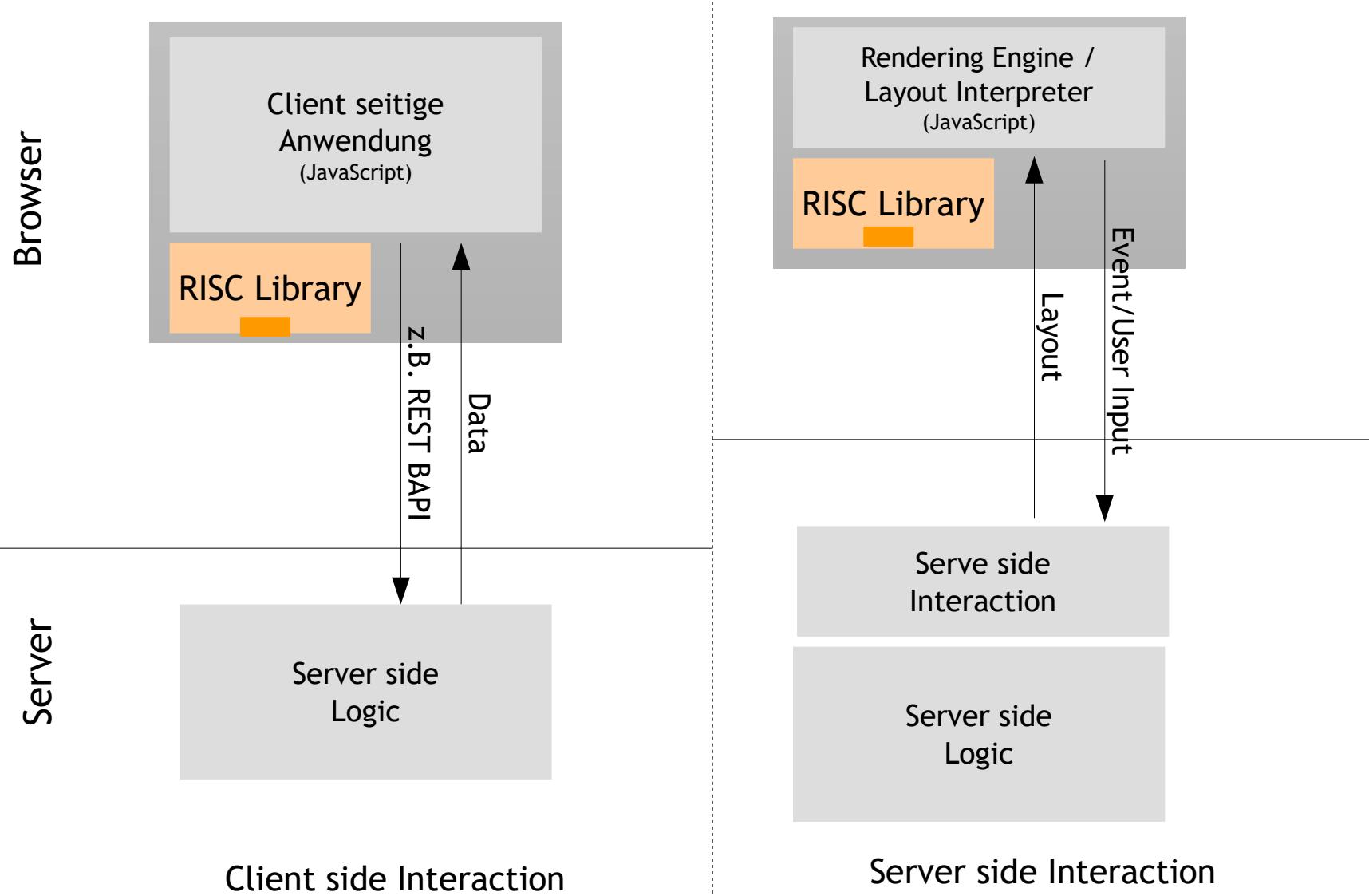
RISC Browser Architecture

ADVANTAGES

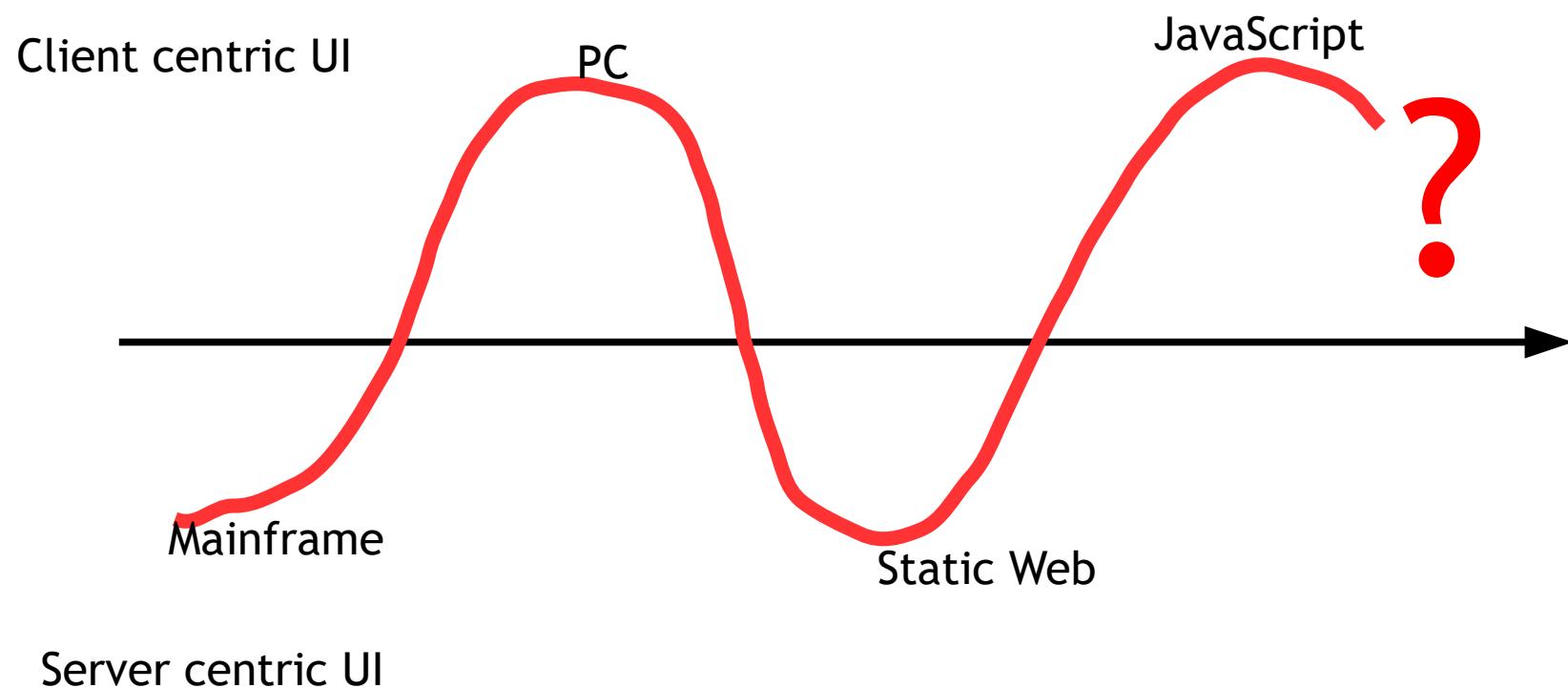
- Browser Incompatibility is no issue.
 - Browser compatibility by design!
 - And not: browser compatibility by test...
- Performance on current browsers (JavaScript „Compilers“) is excellent.
- Layouting is not bound to HTML limits.



Nutzungstopologien



Never ending story



Never ending story

Client centric UI

Client Side Scenarios



Server Side Scenarios

Server centric UI





JavaFX - Summary

- „Gut zu programmieren“
- (Ausreichend) Stabil
- Performance: „befriedigend bis ausreichend“ ;-)
- Deployment: setup.exe



„JavaFX passt“ - Szenarien

- Viel Client-seitige Logik
 - Java > JavaScript
- Client-seitiger Zugriff auf Ressourcen
 - File System, serielle Schnittstelle, TCP/IP
- Explizite Unabhängigkeit vom Browser
- Interaktion auf Pixel-Ebene





JavaFX für Unternehmensanwendungen

- Schwierig zu positionieren
 - Kein Mainstream
 - Keine „Zero Installation“
 - Keine Pixel-Interaktion
- „Einfach so“ einsetzen ist nicht möglich, Sie brauchen einen echten Grund! ;-)
 - Java ist für bestimmte Szenarien ein guter Grund



JavaFX für Unternehmensanwendungen

- CaptainCasa Sicht
 - RISC HTML Ansatz löst die Probleme, die wir mit JavaFX hatten
 - JavaFX Positionierung ist/wird deutlich geringer



Im Jahr 2016, mit RISC based HTML



Im Jahre 2016



JAVA Swing

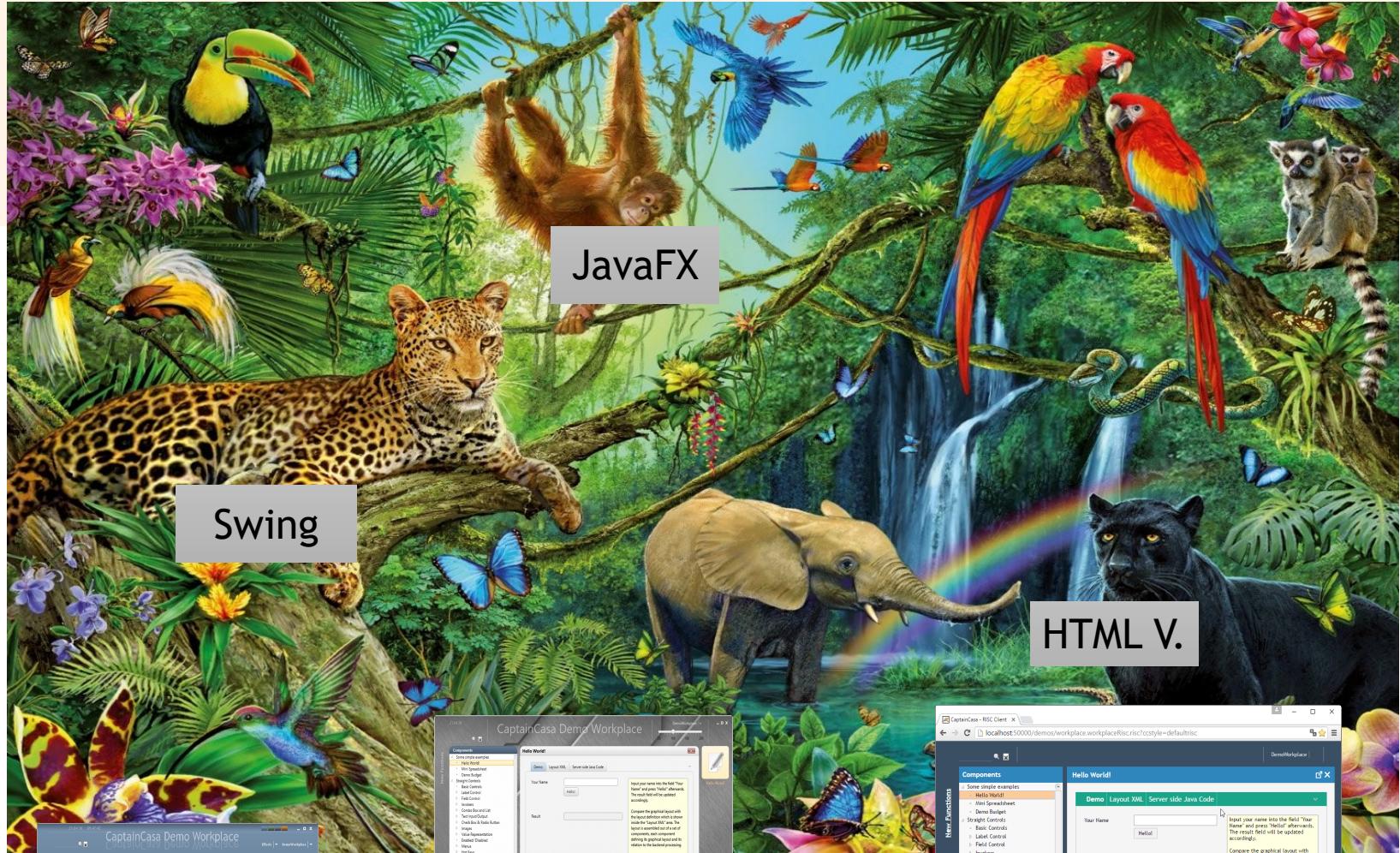


JAVA FX



RISC HTML ;-)





CaptainCasa Enterprise Client

2007

2016



Take the “RISC”!

reduced instruction set client

*A substantially different architecture for
industry-stable HTML Web UIs.*

*browser-compatible by design
fast by design robust by design
zero installation - zero maintenance*



Und zu guter Letzt - CaptainCasa

- Phantastischer Stand auf der JAX
- Phantastische Werbegeschenke! (am Nachbarstand)
- Phantastische Web Seite
- Phantastische Community
- Phantastisches
Rich Client Framework für
Unternehmensanwendungen

