

# Workbench Compose

IP6 berufsbegleitend



## Fachhochschule Nordwestschweiz

Studiengang Informatik Windisch, 19. August 2022

Betreuer: Dr. Dieter Holz
Studierende: Sven Böhm,
Dominik Frei



# Zusammen fassung



# Ehrlichkeitserklärung

Hiermit versichern wir, dass wir diese Projektarbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt haben. Die Stellen unserer Arbeit, die dem Wortlaut oder dem nach Werken entnommen sind, haben wir in jedem Fall unter Angabe der Quelle als Entlehnung kenntlich gemacht. Dasselbe gilt sinngemäss für Tabellen, Abbildungen, Zeichnungen, Berechnungen und durchgeführte Experimente. Diese Arbeit hat in dieser oder einer ähnlichen Form nicht im Rahmen einer anderen Prüfung vorgelegen.

Windisch, 19. August 2022

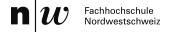
Sven Böhm

Dominik Frei



# Contents

| 1 | Einf | ührung                    | 4 |
|---|------|---------------------------|---|
|   | 1.1  | Problemstellung           | 4 |
|   | 1.2  | Projekt Anforderungen     | 4 |
|   | 1.3  | Technische Grundlagen     | 4 |
| 2 | Inte |                           | 5 |
|   | 2.1  | User Groups               | 5 |
|   | 2.2  | i                         | 5 |
|   |      | 2.2.1 Workbench           | 5 |
|   |      | 2.2.2 Module              | 5 |
|   | 2.3  | UI Elements               | 6 |
|   |      | 2.3.1 Main Window         | 6 |
|   |      |                           | 6 |
|   |      |                           | 7 |
|   |      | 2.3.4 Spaces              | 7 |
| 3 | Test | ing 10                    | 0 |
| 4 |      | ware Sprache und Umgebung |   |
| 5 | Sch  | ussfolgerung 12           | 2 |
| Δ | Sou  | rce Code                  | 3 |



- 1. Einführung
- 1.1 Problemstellung
- 1.2 Projekt Anforderungen
- 1.3 Technische Grundlagen



# 2. Interaction Guide

## 2.1 User Groups

- Compose Workbench Configurere: Developer who creates an Application with the help of the Compose Workbench.
- Compose Workbench User: User of the Application created by the Compose Workbench Configurer.
- Compose Workbench Contributor: Developer which contributes towards the Compose Workbench.

## 2.2 Compose Workbench Elements

#### 2.2.1 Workbench

The Term Workbench is Used to describe the complete Application which is built by using the Compose Workbench Library.

#### **2.2.2** Module

A Module represents a displayable element inside the workbench. It can be displayed as a Tab or Window and builds the interface to the workbench. Explorer and Editor are the two types of Modules.

A Module provides following callback which will expose the Modules internal Model.

- onClose: will be called when displayed Element is closed.
- onSave: will be called when global save from Workbench is called.

#### Explorer

An Explorer is a Type of Module which is used to Explore Data. An Explorer can not be requested from Outside the library. As a best practice all Data in an Explorer should be read only.

#### Editor

An Editor is a Type of Module which is used to Edit Data. Editors can be Requested by the Compose Workbench Configurer from outside the library. This allows editing of



dynamic Data which is displayed in an Explorer. To Request an Editor the Data Model of the editable Data must be provided.

### 2.3 UI Elements

#### 2.3.1 Main Window

Main Workbench View refers to the Initial Window which is opened when starting the Application. There ca be only one Instance of the Main Window at any time.

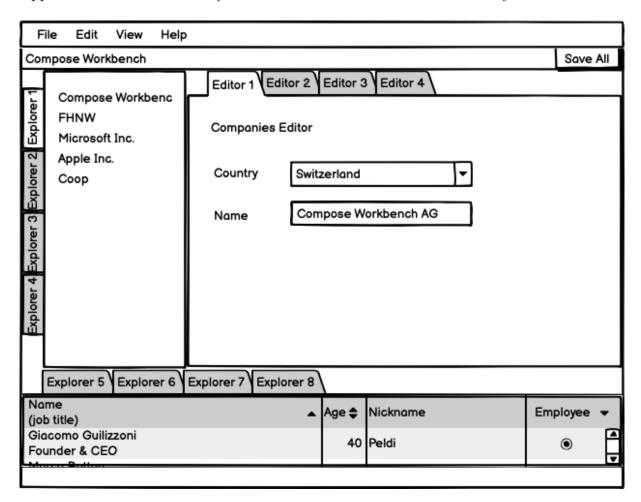


Figure 2.1: Overview Main Window

The Main Window provides this Actions:

- Save All: Sends a save request to all opened Editors.
- Close: Closes the Application.

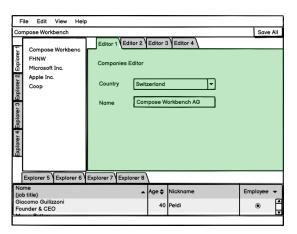
#### 2.3.2 Tab

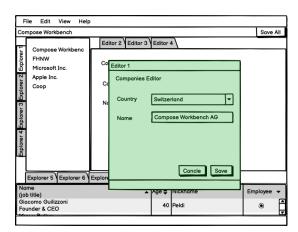
A Tab displays the content of one Module inside the Main Window.

A Tab provides this Actions:



- Drag and Drop: Tab can be dragged out of the main Window and dropped into a new Window.
- Close: Closes the Tab.





- (a) Drag Tab on TabHeader
- (b) Tab is moved out as separate Window

Figure 2.2: Drag and Drop for Tab/Window

### **2.3.3** Window

A Window displays the content of one Module outside the Main Window.

A Window provides this Actions:

- Drag and Drop: Window can be dragged back into the main Window.
- Close: Closes the Window.

## **2.3.4** Spaces

The Workbench Main Window separates two kind of spaces, Editor Space and Explorer Space



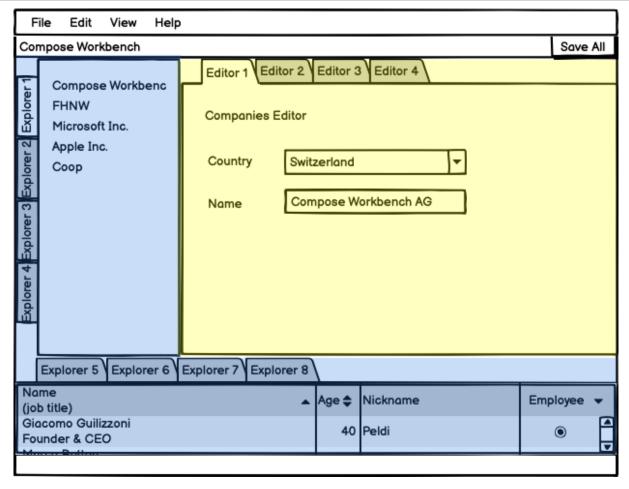


Figure 2.3: Editor Space (yellow), Explorer Space, (blue)

### **Editor Space**

The Editor space displays all opened Editors as Tabs inside of the main Window. The Editor Space can be split once vertically or horizontally to display Editors next to each other.

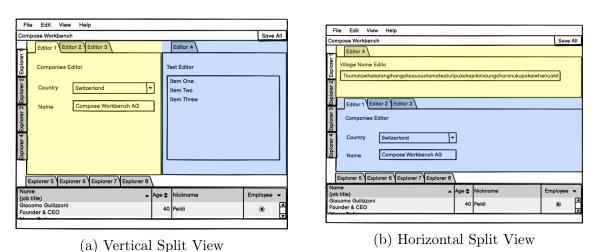
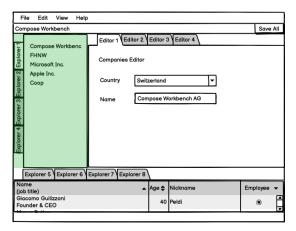


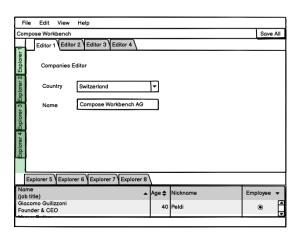
Figure 2.4: Split View on Editor Space



### **Explorer Space**

The Explorer space displays all opened Explorers as Tabs. The Explorer Tabs live inside Drawers which can be collapsed. The Explorer space is split into different drawers which have fixed positions (left, right, bottom).





(a) Explorer Space open

(b) Explorer Space collapsed

Figure 2.5: Collapsible Explorer Space

# 3. Testing



- 4. Software
- 4.1 Sprache und Umgebung



# 5. Schlussfolgerung



# A. Source Code



# Bibliography