
DDI on Rails - Visualization Documentation

Release 1.0

SOEP Developers

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Welcome to the documentation.

CHAPTER 1

Documentation

1.1 Initial meeting (25 Feb 2016)

The sketch illustrates the initial design of a data visualization application, divided into two main sections: **m1** (left) and **m2** (right).

m1 (Left): A mobile phone-like interface with a top bar showing "FREQ - GSE - SEX - sample - label". Below the screen, dimensions are indicated as "100 px" vertically and "20 px" horizontally. The screen displays a bar chart with three bars labeled "Bar 1", "Bar 2", and "Bar 3".

m2 (Right): A detailed view of the data model. It shows a tree structure with "LABELS" at the root, branching into "FREQ" (with "NLS" and "PERC" children) and "CROSS" (with "[]" and "AGS" children, which further branches into "PERC"). To the right, a note asks "→ meta: min, max, etc?".

A central box lists three visualization requests:

- ① AGS vs. PERC → New Graph
- ② FREQ vs. WEIGHTS → Update Data
- ③ W vs W/o MISSINGS → Max

Below this, a "TODO" list includes:

- Data model → Dach
- DB: vis
- PARSER: R2DDI → PY?
- Ajax interface?

A note suggests using <https://github.com/pdionraias/visualizations>.

A diagram below shows a grid of bars with some crossed out, followed by a larger grid labeled "DENSITY-DROP".

Data Model (Bottom Left):

	CAT	UNI	BI
CAT	FREQ	Bar 1	Bar 3
	PERC	Bar 2	Bar 4
Num	FREQ	DENSITY	DENSITY-DROP
CAT	PERC	X	X

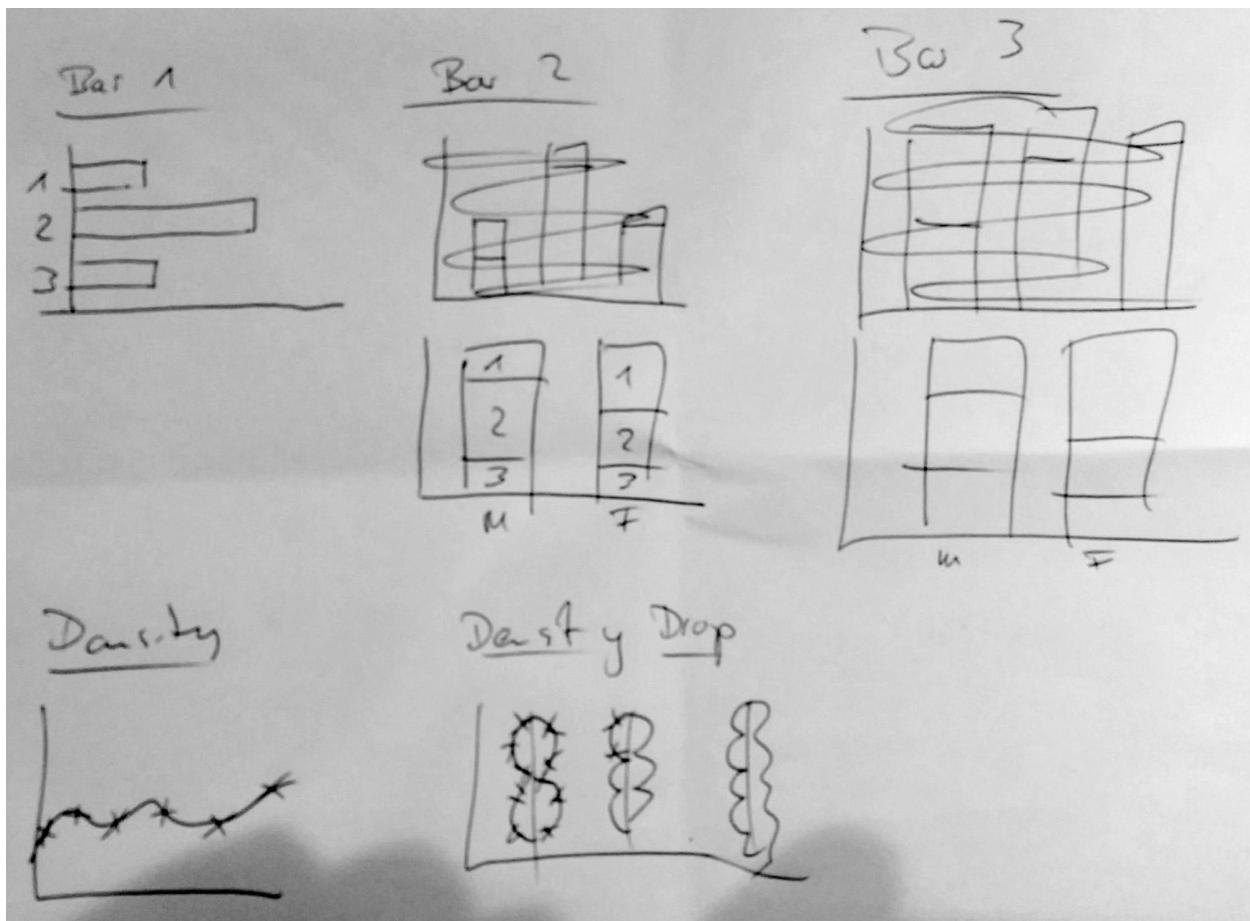
Data Model (Bottom Right):

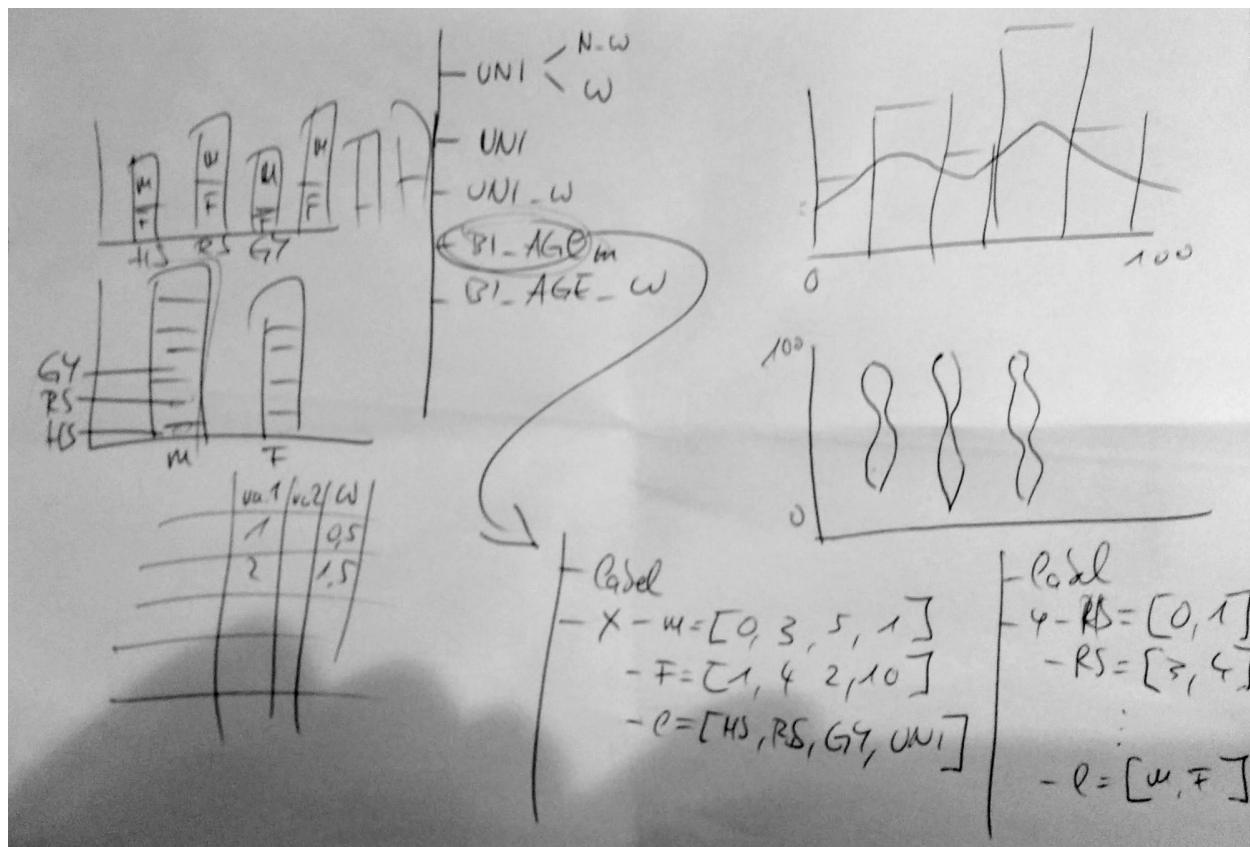
	OPEN	NUM	CAT	BIN
OPEN	-	-	-	-
NUM	-	DENSITY	-	-
CAT	-	-	BAR	-
BIN	-	-	-	-

BI-VAR: DROPS!

Questions:

- Matrix composition?
- Do we need JQUERY?
- ~~Do we need Ajax?~~
- What about 3+ categories?
- ~~How to handle cross tabs?~~
- In the data model: Have independent models for UNI and the BI-s. → redundant information, but easier to render





CHAPTER 2

Data model

Example:

```
{  
    "study": "soep-test",  
    "dataset": "test1",  
    "variable": "edu",  
    "label": "Hoechster Bildungsabschluss",  
    "scale": "cat",  
    "uni": {  
        "frequencies": [12, 123, 321, 214, 100],  
        "weighted": [14, 121, 221, 314, 100],  
        "values": [-1, 1, 2, 3, 4],  
        "missings": [true, false, false, false, false],  
        "labels": ["keine Antwort", "Hauptschule", "Realschule", "Gymnasium", "University"]  
    },  
    "bi": {  
        "sex": {  
            "label": "Geschlecht",  
            "categories": {  
                "0": {  
                    "label": "Mann",  
                    "frequencies": [7, 123, 321, 214, 100],  
                    "weighted": [9, 121, 221, 314, 100]  
                },  
                "1": {  
                    "label": "Frau",  
                    "frequencies": [12, 123, 321, 214, 100],  
                    "weighted": [12, 73, 221, 314, 150]  
                }  
            },  
            "values": [-1, 1, 2, 3, 4],  
            "missings": [true, false, false, false, false],  
            "labels": ["keine Antwort", "Hauptschule", "Realschule", "Gymnasium",  
            ↵ "University"]  
        }  
    }  
}
```

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```
        }  
    }  
}
```