

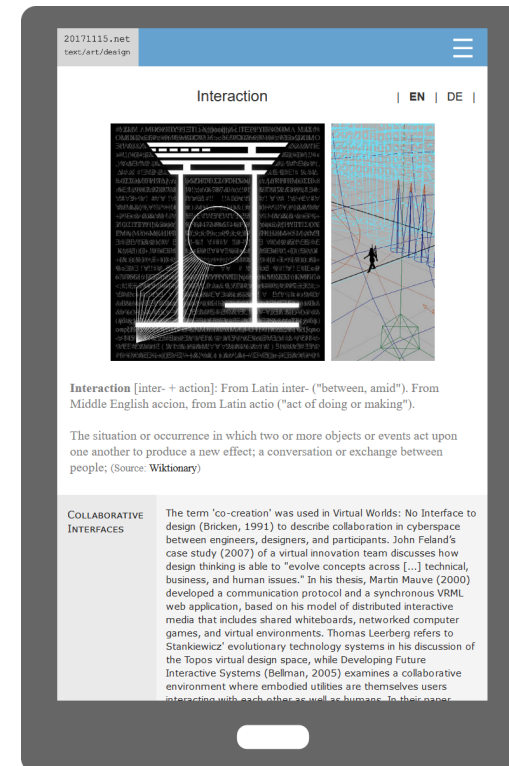
# UI/UX-Design Portfolio (2012-2023)

Marcel Ritschel



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## Profile

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Marcel Ritschel has received a Bachelor of Arts (Degree Major: Art History) from the Australian National University and graduated with a Master of Design from the University of Technology Sydney (Major: Information Design) in 2008. Marcel has worked as a Designer for various companies in Germany, including M&M Software and GMG Color. He is currently employed as UI/UX-Developer at EWS Tool Technologies. Marcel has been a member of the DGTF (Deutsche Gesellschaft für Designtheorie und -forschung) for several years.

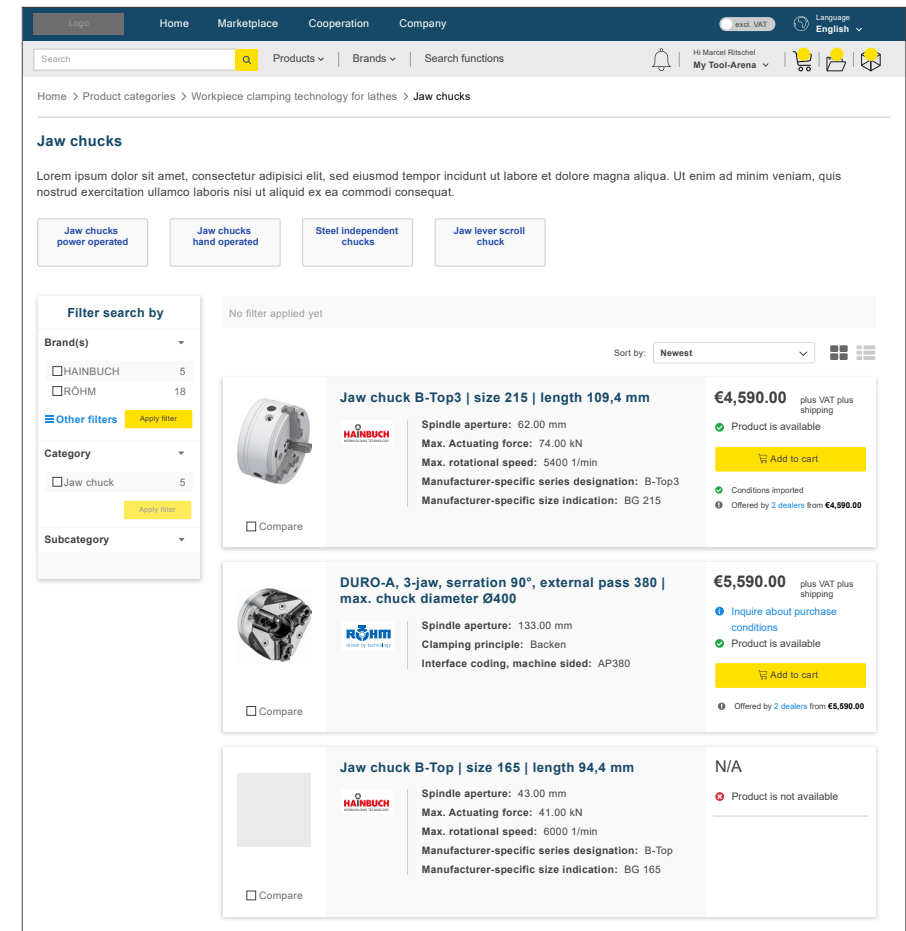
Marcel Ritschel hat Abschlüsse als Bachelor of Arts (Studienzweig: Kunstgeschichte) der Australian National University und als Master of Design (Studienzweig: Informations-Design) der University of Technology Sydney. Er ist bei verschiedenen Firmen in Deutschland als Designer tätig gewesen einschliesslich M&M Software und GMG Color. Aktuell arbeitet Marcel als UI/UX-Entwickler bei EWS Tool Technologies. Marcel ist seit mehreren Jahren Mitglied der Deutsche Gesellschaft für Designtheorie und -forschung (DGTF).

# 1 User Experience Design

## 1.1 B2B Customer Journey

*Description:* Customer journeys for the Tool-Arena portal, including product selection via 3D- or assembly chart, machine- and application-centred product search, shopping cart and order process.

The project involved designing for end users (dealers, customers) as well as content managers and developers.



Design mockup for the product catalogue.

# 1 User Experience Design

## 1.1 B2B Customer Journey (continued)

The screenshot shows the 'My Tool-Arena' web application. The top navigation bar includes 'Home', 'Marketplace', 'Cooperation', and 'Company'. A search bar is present, along with user information 'Hi Marcel Ritschel' and 'My Tool-Arena'. The main content area is titled 'Tool assemblies for my prototype - Saved workspace' and includes the instruction 'Add suitable products to your assemblies from the product catalogue.' Below this, there is a 3D model of a machine tool on the left and a hierarchical assembly tree on the right. The assembly tree shows a 'Turner' component with two sub-assemblies, each containing a 'WeldonWhistle' component. Below the 3D model, there is a text prompt: 'You currently have 3 products in this configuration'. A table below this prompt lists the products in the configuration.

Position	Brand	Product name	Article Nr.	Availability	Item price	Actions
[3,1]		Assembly with 2 products				
1.1	EWS	40.4025WNRCTX, Axial drilling and milling head l = 1:1, WeldonWhistle Notch Dia. 25	130735	Available	€2,330.00	
1.1.1	OSG	OSG VP-HO-GDR D 20.5, twist drills D 20.5	8593705	Available	€481.60	
[3,6]		Assembly with 1 product				
5.1	EWS	40.4025WNRCTX, Axial drilling and milling head l = 1:1, WeldonWhistle Notch Dia. 25	130735	On request	€2,330.00	

## Tasks

Concept development; Workflows and Interaction Design; Visualisation with Adobe Illustrator; Hi-Fidelity Prototyping with Axure RP; Developer support; Quality management; Usability reviews.

**Product position**

Select the turret position(s) where you want to **add** the product.

☐ All  
☐ 1 ☐ 2 ☐ 3 ☐ 4  
☒ 5 ☐ 6 ☐ 7 ☐ 8  
☐ 9 ☐ 10 ☐ 11 ☐ 12

**Edit product placement**

Set the desired offsets for this product.

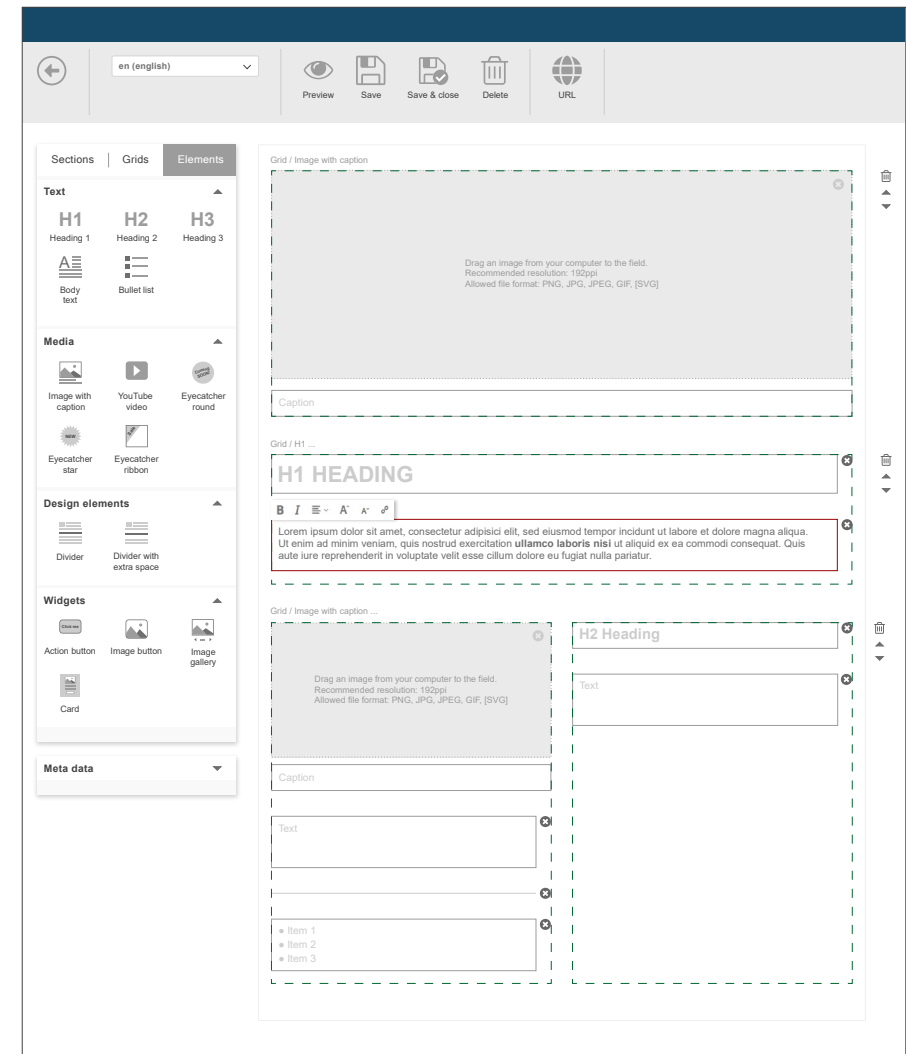
☒ 1.1.1 Offset (0 - 6mm)

# 1 User Experience Design

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## 1.2 CMS / Content Editor

*Description:* Custom content management system for Tool-Arena marketing staff.



# 1 User Experience Design

## 1.3 Living Styleguide

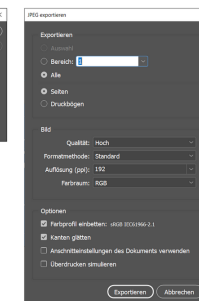
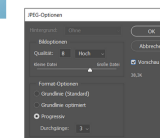
*Description:* Online UI-Styleguide for Tool-Arena developers and content creators.



Image optimization for the internet involves dimensions, resolution, image format and file size. The best starting point for every optimization is always the original high-resolution bitmap file!

1) Unless it is feasible to provide multiple versions - that is, one optimized image per device type (e.g. via the `picture` tag and media queries) it is recommended that the final image is outputted at a resolution of 192ppi (for Retina) and 25-35% greater in size than is normally required in case users have their display scaled up to 125%.

2) The final image should be compressed with JPG to reduce the file size for faster download times. Experts generally recommend a quality level of ~75% which is achieved in Adobe Photoshop by setting the Image option to 8 or 9 and the Format options to "Progressive".



## UI-Styleguide

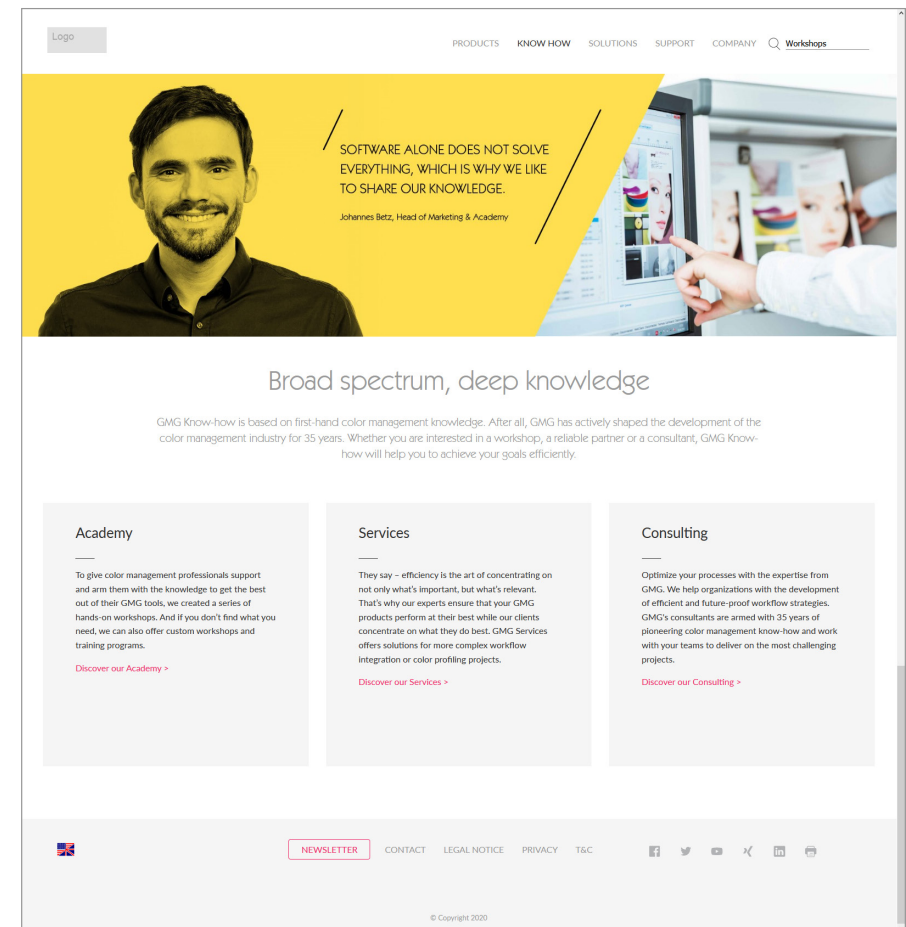
Most styleguides communicate essential aspects of a brand or Corporate identity by specifying the correct usage of logos, fonts, colours, layout schemes. A UI-Styleguide must, in addition, describe what the implemented user interface will do in terms of appearance and behaviour.

A UI-Styleguide needs to prepare for the future. It should be powerful enough to preserve an agreed upon look-and-feel; and it should be flexible enough to deal with human- and machine-driven variations.

## 2 Website Design & development

### 2.1 Corporate Website

*Description:* TYPO3-Website for GMG Color. The project involved the development of an interactive frontend prototype from static design mockups, as well as coordinating with a software agency to implement and deploy the site.

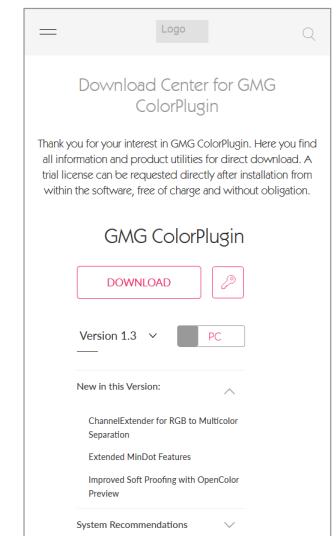
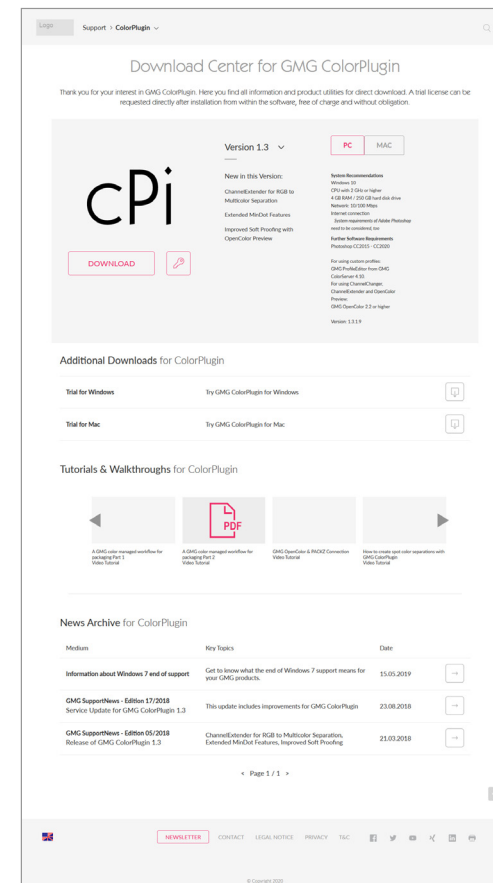




## 2 Website Design & development

### 2.1 Corporate Website (continued)

*Description:* Download centre for the specialist software of GMG Color.



### Tasks

Responsive Web Design; Hi-Fidelity Prototyping; Technical Project Management;  
Design of a UI-Styleguide; Technical documentation.

## 2 Website Design & development

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### 2.2 User documentation

*Description:* Documentation of the editorial backend for GMG marketing staff.

[...]

Standard-Elemente 10

Rich Text Editor (RTE) 10

RTE Quellcode-Modus 11

RTE Quellcode-Modus: Bullet-Listen 11

Kundenspezifische Elemente (GMG Color Elements) 12

GMG BANNER (Bild) 14

Bilder Optimieren 16

SLICK SLIDER 18

MINI-SLIDER 19

FLEXI-BANNER (Bild mit editierbaren Textinhalten) 19

ZENTRIERTE ÜBERSCHRIFTEN 21

Trennlinien 21

RESPONSIVE BILDER 22

**Workflow Bild-Editor 23**

Bilder direkt verlinken 24

GROSSE PRODUKTIONS (Icon list) 25

GRUPPE CONTENTBOXEN 27

Kontaktbox 28

**Verschlüsselte Mailto-Links 30**

PRODUKTE 32

Graue Box mit kleinen Produkticons 32

[...]

Backend Dokumentation GMG Color



Abb. TYPO3-Vorschau der gerätespezifischen Bildausschnitte

#### Workflow Bild-Editor

1. **Upload:** Für die Content-Elemente "Graue Box mit Producticons" und "Contentbox weiß mit Bild" werden als Ausgangspunkt Bilder mit einer Breite von circa 900px und einer Höhe von circa 600px empfohlen.
2. **Gerätetyp:** Wählen Sie im rechten Panel des geöffneten Editors einen Bildausschnitt zum bearbeiten. Das optimale Seitenverhältnis wird als Default bereitgestellt.
3. **Art-Direction:** Im Arbeitsbereich können Sie den Ausschnitt **(a)** verschieben, und/oder **(b)** skalieren. Dabei ist stets zu berücksichtigen, dass der wichtigste Inhalt des Bildes, also der „**Focal-Point**“ möglichst vorteilhaft dargestellt werden soll (siehe Piktogramm unten).
4. **Akzeptieren UND Seite speichern.** Das neue Bild im Layout bitte *vor der Veröffentlichung für alle Browser-Breiten testen* und einen unbefriedigenden Bildausschnitt nochmal anpassen.

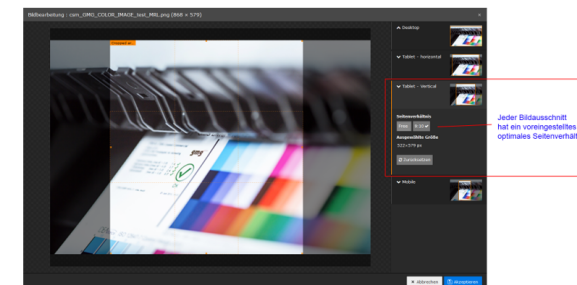
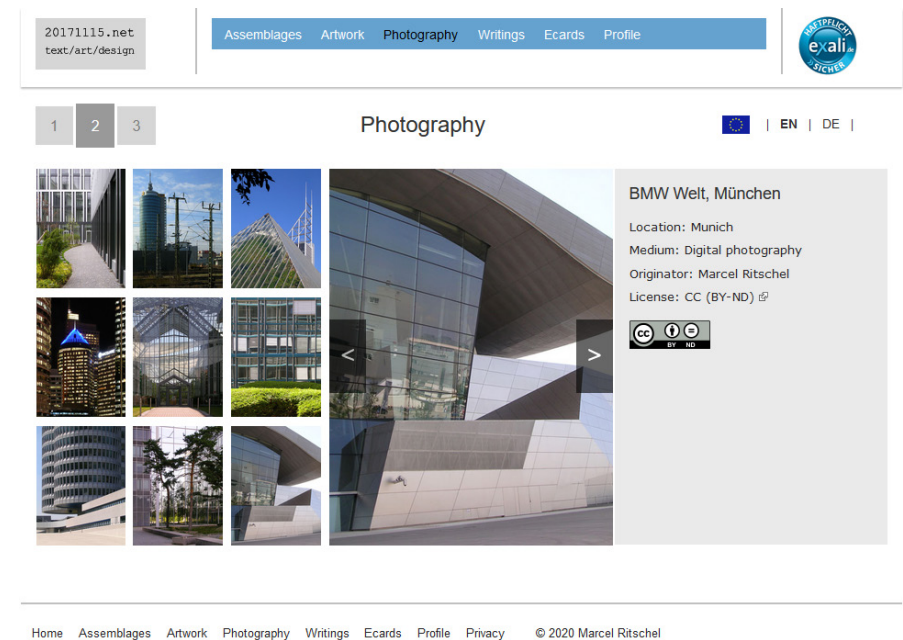


Abb. Bild-Editor mit Ausschnitt „Tablet-Vertical“ selektiert

## 2 Website Design & development

### 2.3 Online gallery

*Description:* The digital gallery provides online storage for, and browser access to, a visual portfolio of creative work. It includes a number of photographic studies of modern architectural designs, as well as a collection of analogue and digital artworks.



### Tasks

Content management; Responsive web design, HTML/CSS/JS; Layout and graphic design using Adobe Creative Suite.

## 2 Website Design & development

### 2.4 Electronic greeting cards

*Project:* Ecard web application with a focus on the natural world, including flowers, gardens, and landscapes. It allows users to browse, customise, preview and send personalised electronic cards to their friends.

The screenshot shows a web application titled "Personalize Ecard". At the top, there is a navigation bar with links: "Assemblages", "Artwork", "Photography", "Writings", "Ecards", and "Profile". A logo for "20171115.net text/art/design" is on the left, and a circular logo with "exali" is on the right. Below the navigation bar, there is a back button and the title "Personalize Ecard". To the right of the title are flags for "EN" and "DE". The main content area is divided into two columns. The left column features a large image of pink and white plumeria flowers. Below the image is a text input field with the placeholder "-- Enter your personal message.". The right column contains a form with the following fields: "From:" with sub-fields for "-- Your First Name", "-- Your Name", and "-- Your Email address"; and "Send to:" with a sub-field for "-- Email address". At the bottom of the form are "Reset" and "SEND" buttons. A footer at the very bottom contains links: "Home", "Assemblages", "Artwork", "Photography", "Writings", "Ecards", "Profile", "Privacy", and "© 2020 Marcel Ritschel".

### Tasks

[Interaction Design](#); Content development; Responsive web design, HTML/CSS/PERL; Graphic design using Adobe Creative Suite.

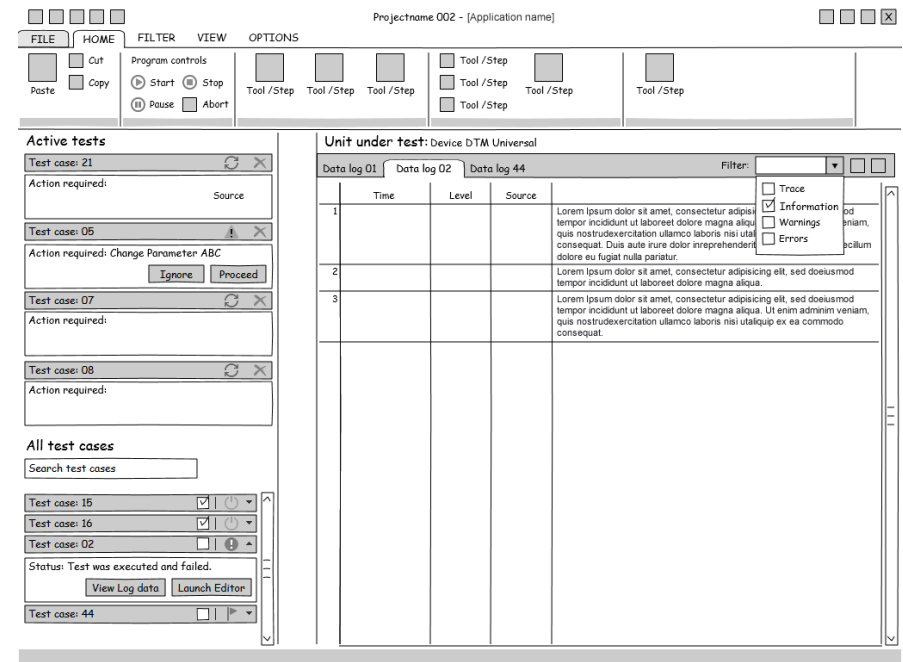
### Ecards

Ecard systems make digital art objects accessible by combining "a celebratory user mindset" with genuine user choices, an elegant, fast communication tool and creative possibilities. Ecards provide a framework that can help users accomplish social and professional tasks.

## 3 User interfaces for industrial software

### 3.1 Wireframes and storyboards

- Interaction requirements are associated with tools, controls and display areas;
- Creation of wireframes and storyboards to render a user scenario.



### User Scenarios

A scenario describes interactions between personas and the future product. Scenarios help explore representational state and behaviour, e.g. the actions of the user and the reactions of the system.

### Wireframes

Conceptual representation of a user interface, usually as a simple line drawing. A wireframe typically consists of several rectangles to represent UI-containers and basic UI-elements.

**HMI:** The UI indicates a positive end status for *Test case 44*. The red coloured icon for *Test case 02* indicates a negative end status.

**User action:** The user has flipped open *Test case 02* in order to find out what happened. (Some of the active test are still running.)

**HMI:** The UI displays a brief status message and relevant options.

**User action:** The user has clicked the *View Log data* button to study the details.

**HMI:** The UI opens the data log for *Test case 02* in a new tab [and highlights the line numbers where the complications that lead to this test failure began].

**User action:** The user has clicked the *Filter* Drop-down in order to reduce the data to the essentials - he is only interested in *Warnings* and *Errors*.

**HMI:** The UI filters out less relevant data such as *Trace* and *Information*.

**User action:** The user has clicked the [Launch Editor] button.

**HMI:** The software [launches an external application].

### 3 User interfaces for industrial software

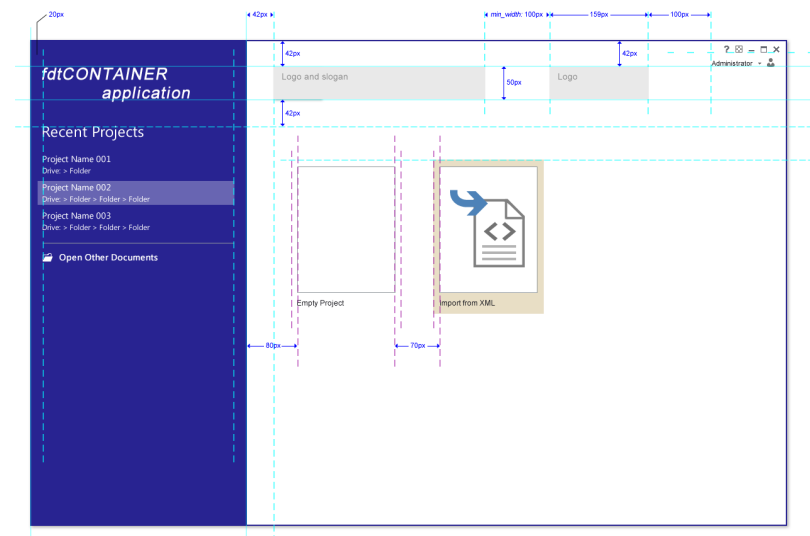
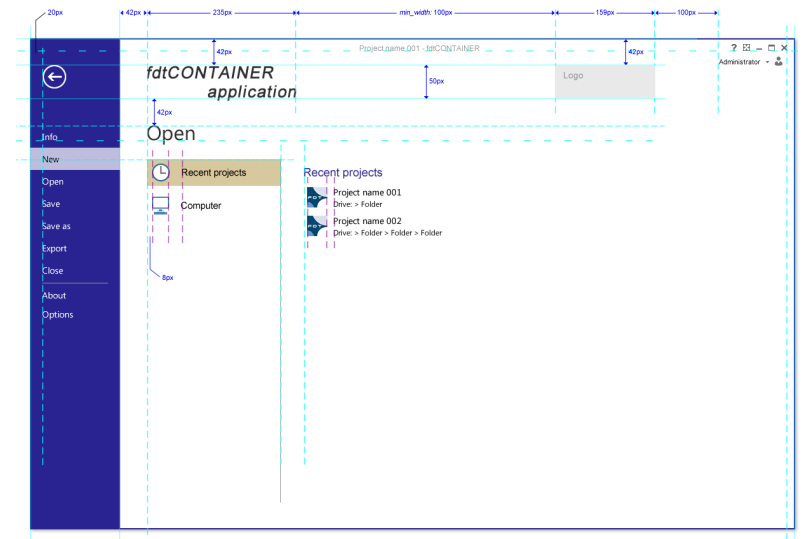
#### 3.2 Layout design and visual structure

*Spatial distribution:* The screen area is divided into large vertical and horizontal containers.

*Visual hierarchies:* UI-elements are weighted by frequency of use and ordered using visual characteristics.

*Spatial grouping:* UI-elements are grouped by means of identical spacing and frames.

*Alignment:* UI-elements are positioned consistently according to a scheme.



## 3 User interfaces for industrial software

### 3.3 Responsive UI Design

Adaptive measures on both design- and technology levels ensure that contents will be loaded as required to match a given view port:

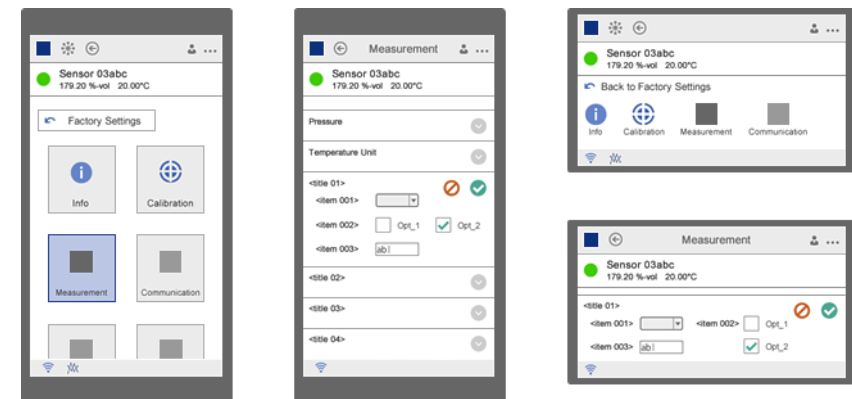
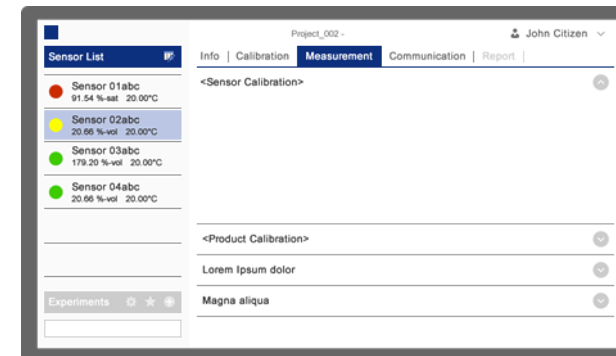
- *Server-side adaptation* may involve CSS media queries which are used to gather relevant device information before sending formatted screen content.
- With *Client-side adaptation*, all contents [HTML, JavaScript, CSS, SVG] can be stored on the server in a device-independent way and then formatted locally by the target device.

Responsive UI Design allows the “simulation” of adaptable layouts and -contents:

- Different layouts to match anticipated screen sizes, navigation structures, and interaction paradigms;
- Creation of static design mockups for the PC, Tablets, and Smartphones.

### Responsive Web Design

- Interfaces have to negotiate evermore complex fields of tension between humans and technology.
- Users normally want the best possible interactive experience regardless of the time of day, their position on earth, or the device before them.
- Adaptive Layouting ensures that page contents will be scaled, compressed, or repositioned in order to match the workflow of the user and the capabilities of the technical system.

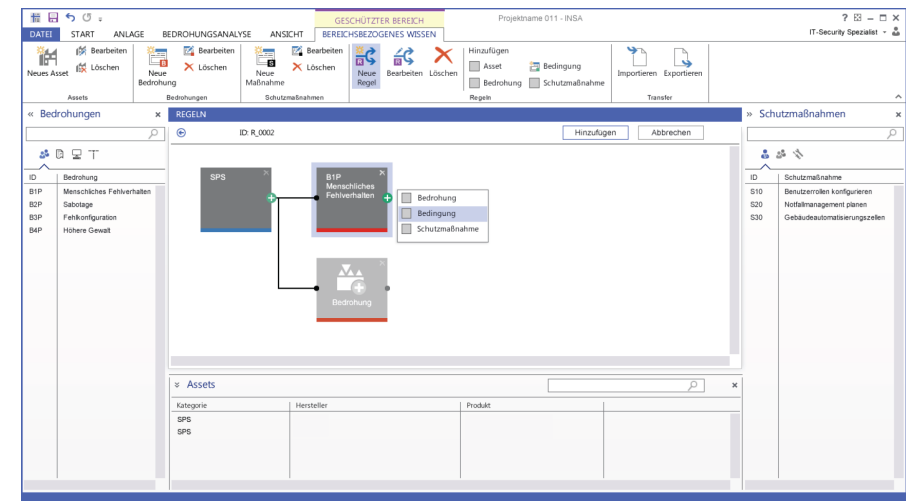


Design mockups for a touch-capable Desktop-UI (top), a Mini-Tablet (left) and a Smartphone (right).

## 3 User interfaces for industrial software

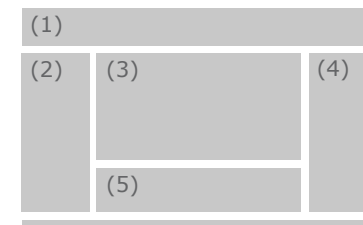
### 3.4 Style and branding

Development of a design language and creation of design mockups; The look-and-feel of major user interfaces is worked out with reference to existing wireframes.



### Branding

The term Branding refers to the appearance and qualities of a product which are unmistakably associated with the originating company. Brand values may focus on the look, tone, and behaviour of a product but ultimately encompass every human interaction with the company.



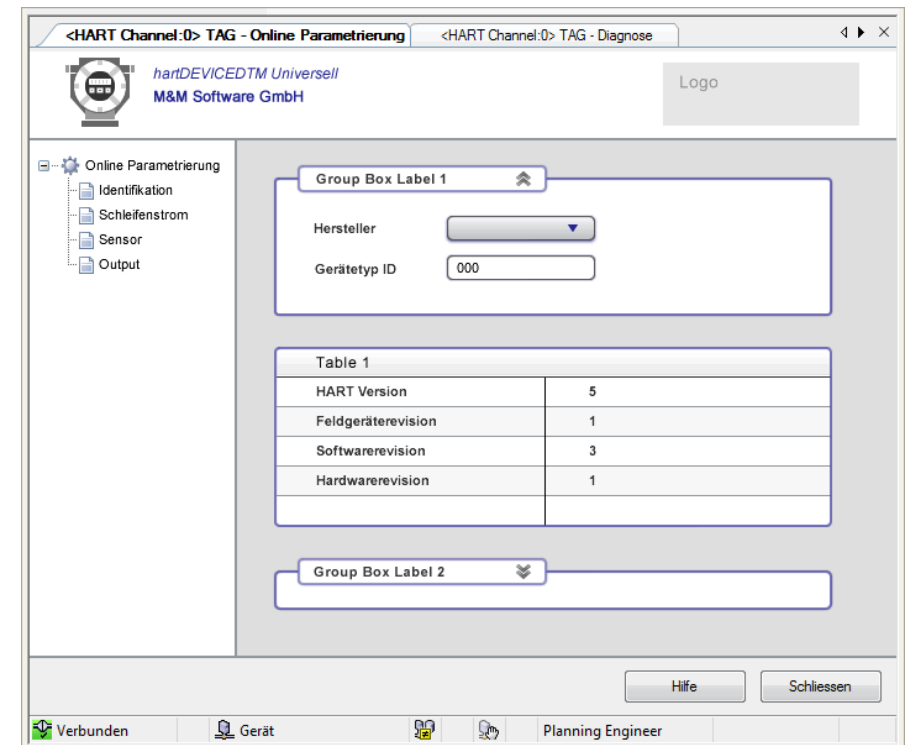
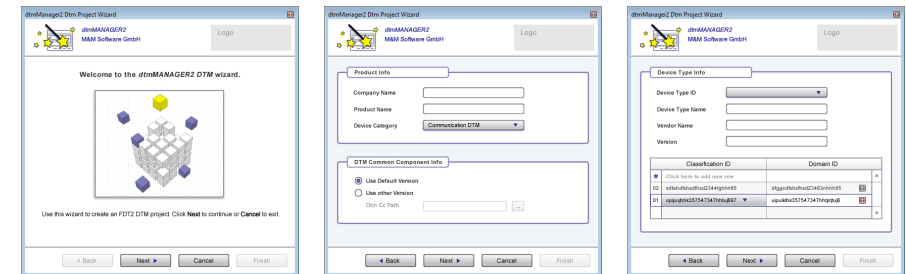
- (1) Ribbon
- (2) Project navigation
- (3) Workspace
- (4) Options
- (5) Catalogue
- (6) Status bar



## 3 User interfaces for industrial software

### 3.5 Case study: *Device type manager*

**Project:** With Windows Presentation Foundation (WPF), the design of graphic user interfaces for Device Type Managers (DTMs) was no longer subject to the restrictions imposed by using C++. The project thus involved the development of a suitable design language for a group of digital products - or more precisely, the dtmMANAGER development suite. It was important that branding elements, especially the Corporate colours of M&M Software, be consistently embedded in the UI so as to ensure visual compatibility between all products, while still adhering to (FDT) industry norms. In order to facilitate accurate implementation by developers, a number of design mockups were produced as well as a simple style guide with layout-grids, measurements and hexadecimal colour values.



### Tasks

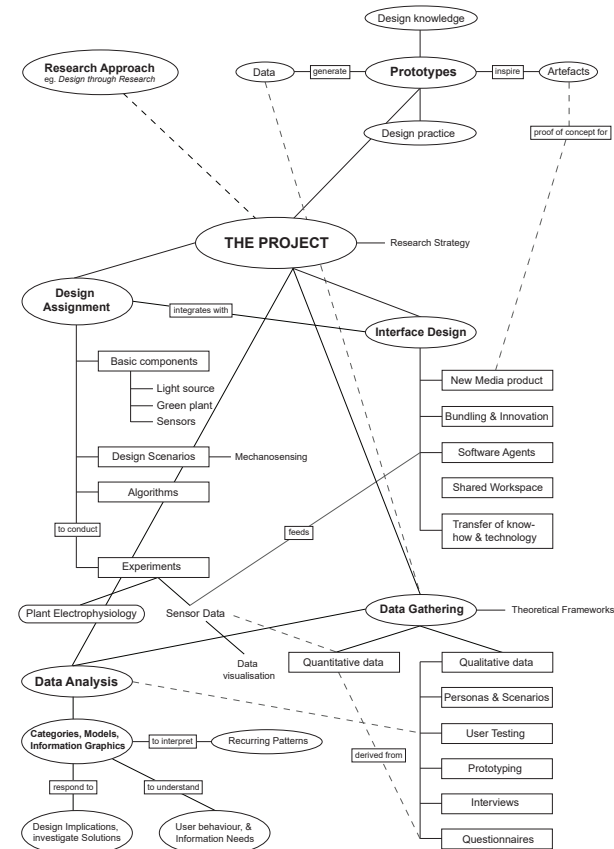
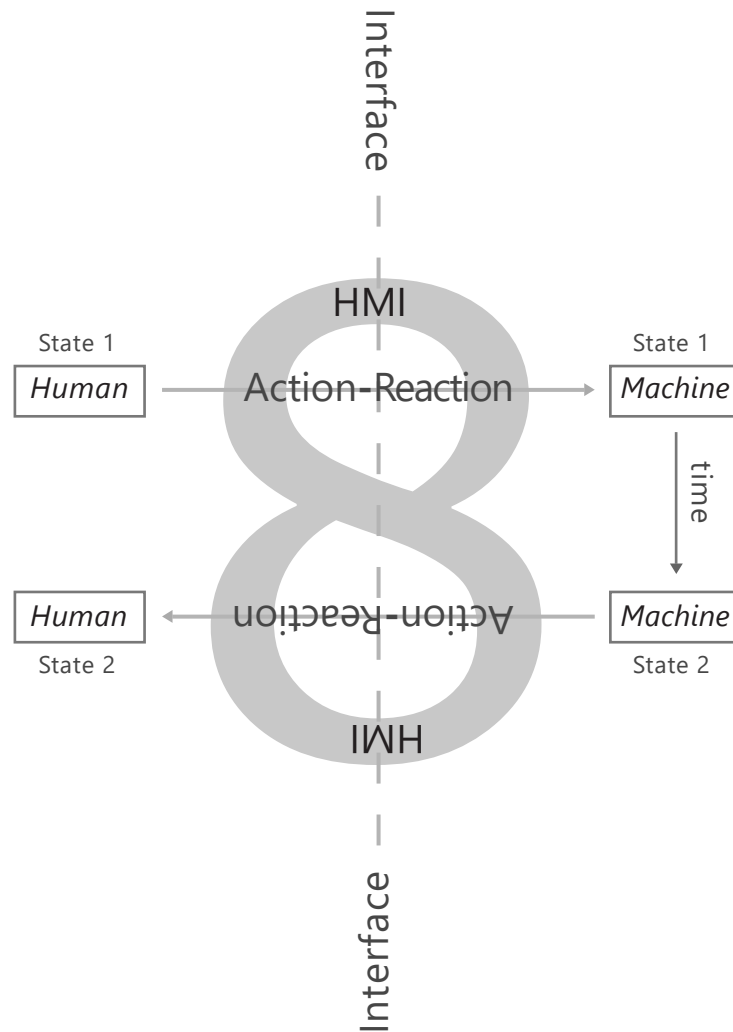
Interaction design and wireframes; Layout, mockups, screen-design; Prototyping with Expression Blend; Creation of a styleguide and XAML-based GUI-Library.

### dtmMANAGER development suite

The dtmMANAGER is a developers' tool for building device, gateway and communication DTMs. It includes common components, a project wizard, and a tutorial to support device-specific development tasks.

## 4 Graphic notations

### 4.1 Concept diagrams



Action-reaction pairs (*left*) and visual representation (*right*) of a research-based design project in terms of non-linear semantics.