

# Best Practice in GUI Development

## Live Data Prototyping

In many projects, from concept to final delivery, the user interfaces and the underlying middleware are developed by separate teams.

This approach requires a good interface and a detailed description of the data to be exchanged.

Errors in this interface are often only discovered during integration on the target hardware in a very late phase.

Bringing the GUI and middleware together at an early stage can save a lot of time and money here. But how can this be realized when the target hardware is often not even ready yet?

We would like to show you a technique that our GUI Service team has been using in many customer projects for over 20 years.



Our project with LOEWE is a perfect example. Over the course of 10 years we have supported them in the continuous development of their TV interface using Live Data Prototyping.



### Challenge

- Separated teams
- Comprehensive Interface Definition
- Test data for
  - Timing Behavior
  - Data Models
  - Value Ranges



### Solution

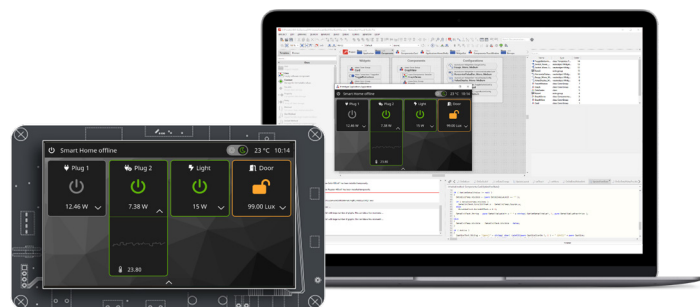
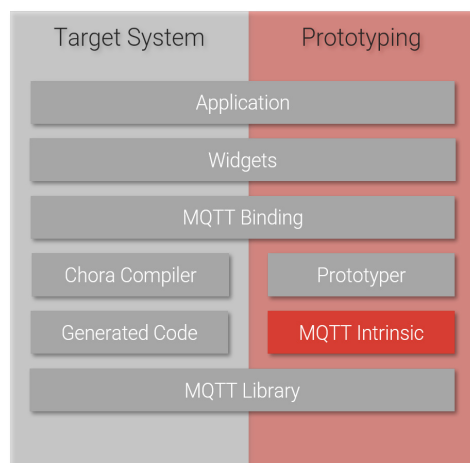
- Prototyper
- Use real data from MW
- Co-working of teams
  - Design
  - Development
  - Testing
  - Marketing



### Advantages

- Globally available at an early stage
- No surprises in the data flow
- Low technical hurdle
- Realistic behavior with dynamic data
- Less creation of extra test data
- Significant time savings
- Optimized workflow

## Sample project using MQTT



GUI Solutions by TARA Systems