

(Architecture) Decision Records

What are ADRs and why should you use them?

Context

- we live in a agile world
- documentation needs time, which we usually don't have
- teams are constantly in change

What is an ADR?

An Architectural Decision (AD) is a software design choice that addresses a functional or non-functional requirement that is architecturally significant

- can be also used and modified for any kind of decision

Problems they try to solve

- documenting decisions in a lightweight way
- make solutions trackable
- allow new members to easily understand why decisions were made
- revisit choices in case something turns out to be the wrong
- create a knowledge base
- keep it simple, no complex format

Contents

ADRs can contain different fields depending on the usecase, these are the typical ones:

| Field | Description |
|--------------------------|---|
| title | short description about the problem or decision to make |
| status | position in lifecycle (e.g. <code>proposed</code> , <code>accepted</code>) |
| context / problem | conditions that led to the decision or a specific problem we try to solve |
| pros / cons | pro and cons for each possible option |
| consequences | list all positive and negative consequences |

How to use

- synchronous
- asynchronous

synchronous

- meet
- discuss and use as protocol
- document final decision
- implement

How to use

- synchronous
- **asynchronous**

asynchronous

- someone or a subgroup creates a proposal
- discuss the proposal with a tool (using comments, chat etc.)
- finalize decision and get approval from everyone

Typical lifecycle

| Status | Meaning |
|-------------|--|
| wip | work in progress, not usable yet |
| proposed | ready, but not approved |
| accepted | everyone agreed, ready |
| discarded | thrown away, will not be used (e.g. problem doesn't exist anymore) |
| deprecated | information no longer up to date |
| superseeded | has been replaced by new decision (provide reference) |

Example (001-Written-language-in-the-team)

```
# Basic information
number: 001
title: Written language in the team
status: accepted
context: |
  In the team we need to agree which language to use for public communication and documentation inside TrustedShops.
  Previously there were a lot of uncertainties and unclear usages of different
  languages in different situations.
  To be more consistent as a team inside the company we need to decide for one.
# Choices we have
choices:
- choice: "English"
  description: We use english for the entire written communication
  pros:
    - company language
    - flexibility for new team members
  cons:
    - language level in team is not high, which leads to miscommunication
- choice: "German"
  description: We use german for the entire written communication
  pros:
    - native language for all current members
    - no language barrier
  cons:
    - company language is english
    - new team members might be unable to understand it properly
- choice: "German & English"
  description: We write texts in german and provide a english translation with a tool (e.g. DeepL)
  pros:
    - includes company language
    - flexibility for new team members
  cons:
    - translation in english might be wrong at some places
# Final decision section
decision: "German & English"
consequences:
- we align with company language
- no room for misunderstandings due to german version
- proof reading for translated english version to avoid wrong keywords
```

The End

Spread the word and use (A)DRs to make the world a better (documented) place.

