

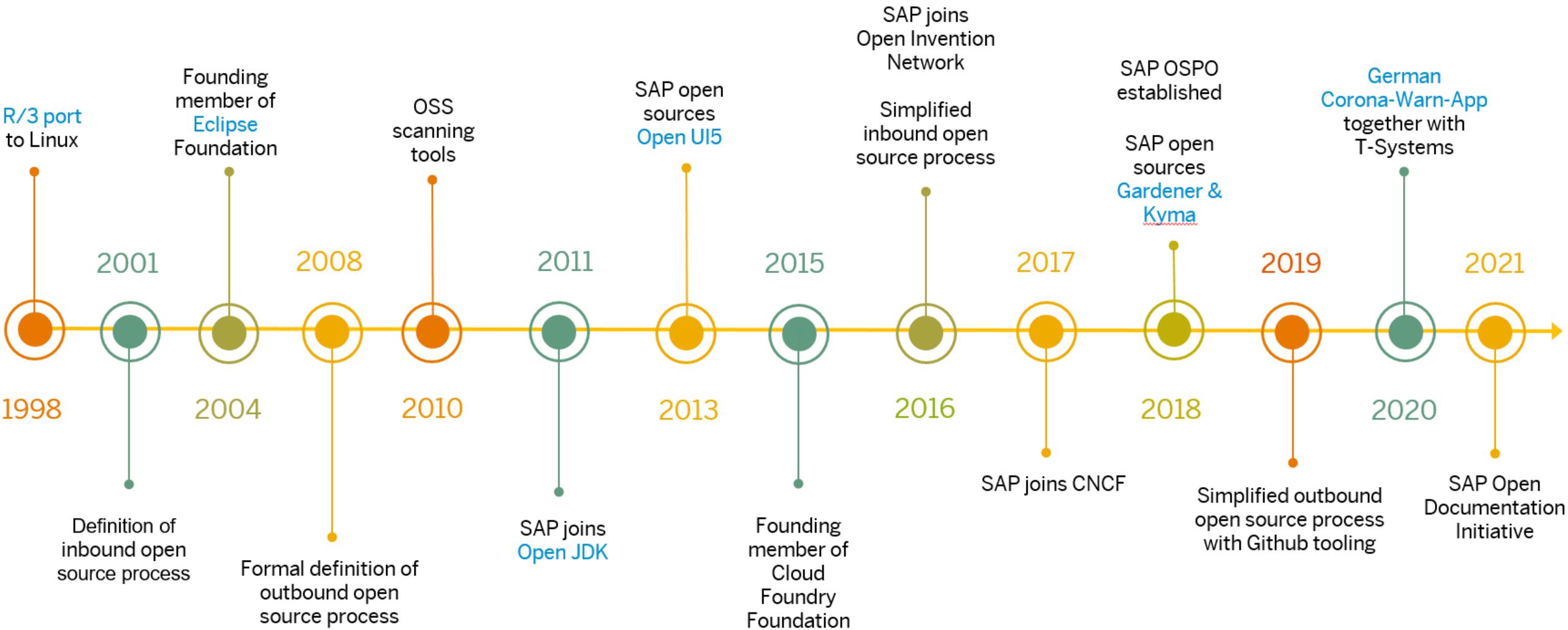
Best of Open Source SAP Community Projects

Marian Zeis – Independent Consultant

BELGIUM
SAP Inside Track



SAP's Open Source Journey (Milestone Examples)



Agenda

- Open Source Projects from SAP/Community in:
 - ABAP
 - UI5
 - Other
- Survey



ABAP



ABAP - SAP

Clean ABAP

Names
Use descriptive names <code>max_wait_time_in_seconds, iso3166tab.</code>
Language
Prefer object orientation over imperative programming i.e. classes over functions and reports
Prefer functional over procedural language constructs E.g. <code>index += 1</code> instead <code>ADD 1 to index</code>
Comments
Express yourself in code, not in comments
Delete code instead of commenting it
Formatting
Be consistent

The Golden Rules

Don't mix stateful and stateless in the same class
Classes: Scope
Members PRIVATE by default, PROTECTED only if needed
Testing: Principles
Write testable code <i>There are no tricks to writing tests, there are only tricks to writing testable code. (Google)</i>
Enable others to mock you <code>CLASS my_super_object DEFINITION. INTERFACES you_can_mock_this.</code>
Readability rules <code>given_some_data(). do_the_good_things(). and_assert_that_it_worked().</code>
Test classes
Call local test classes by their purpose

Methods: Object orientation
Prefer instance to static methods <code>METHODS a CLASS-METHODS-a</code>
Public instance methods should be part of an interface <code>INTERFACES the_interface. METHODS-a</code>
Methods: Method body
Do one thing, do it well, do it only
Descend one level of abstraction <code>do_something_high_level(). DATA(low_level_op) = a { b } .</code>
Keep methods small 3-5 statements, one page, 1000 lines
Methods: Parameter number
Aim for few IMPORTING parameters, at best less than three

ABAP Code Reviews

A practical guide

ABAP - SAP

code pal for ABAP

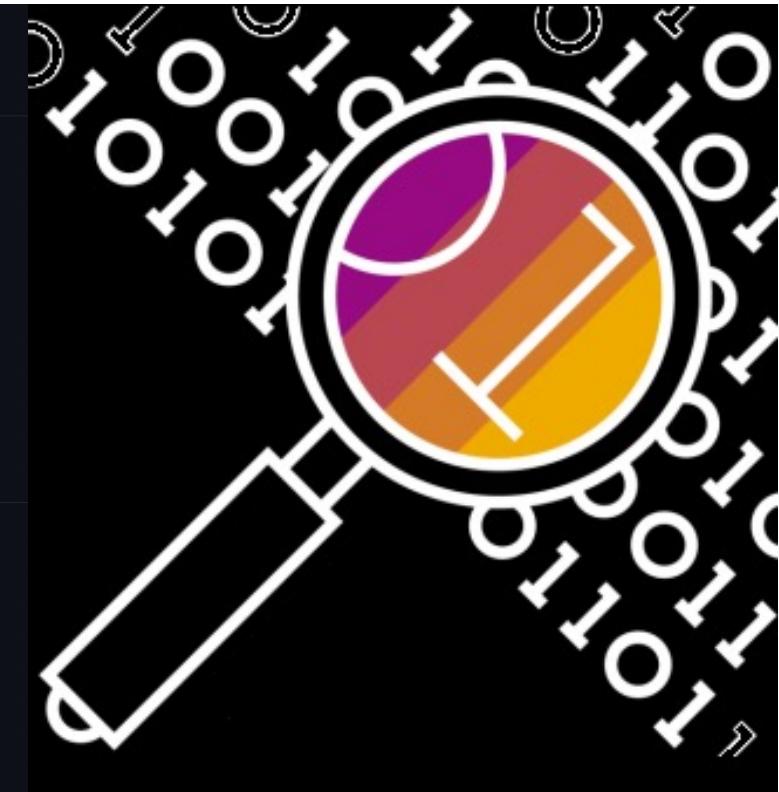
version v1.16.3 license Apache-2.0 REUSE compliant

Based on the [Clean ABAP](#), this tool contains a set of checks to guarantee the Clean ABAP adherence. Together, we both support you in writing a clean ABAP code.

❤ It's free and open-source.

Features

- Supported by Code Inspector ([SCI](#) / [SCII](#)) and ABAP Test Cockpit (ATC) ([SE80](#) / Eclipse);
- Ignores automatically generated code;
- Supports exemptions;
- Provides a new user-friendly way to create variants ([Profile Management](#));
- Allows configuration based on:
 - Threshold;
 - Severity / Priority;
 - Validity for productive code, test code, or both;
 - Validity for objects created since a specific date;
 - Validity period;
 - Allow / Deny exemption.



ABAP - SAP RAP Generator

The screenshot shows the SAP RAP Generator Project page. At the top, there's a GitHub header for the repository `SAP-samples / cloud-abap-rap`. Below it, the project name `RAP Generator Project` is displayed. A red box highlights the namespace `Z` in the `Used to build repository object names` section. A large red box encloses the `Implementation Details` section, which includes fields for Implementation Type (`managed_uuid`), Datasource Type (`table`), Binding Type (`odata_v4_ui`), and Draft enabled (`checked`). A red callout bubble labeled **1.** points to the `Implementation Details` section. Another red box highlights the `Travel` entity in the `Entities` table. A red arrow points from the bottom right towards the `Travel` row in the table.

Implementation Details

- Implementation Type: `managed_uuid`
- Datasource Type: `table`
- Binding Type: `odata_v4_ui`
- Draft enabled:

Entity Name	Distance from R...	Parent Entity Name
Travel	0 Yes	Travel

ABAP - SAP

ABAP File Formats

REUSE compliant

Description

This project provides file format definitions of ABAP repository objects.

<https://github.com/SAP/abap-file-formats>

CLAS File Format

The files correspond to the tabs in ABAP Development Tools, enriched with metadata and translation relevant texts.

File	Cardinality	Definition	Schema	Example
<name>.clas.json	1	zif_aff_clas_v1.intf.abap	clas-v1.json	z_aff_example_clas.clas.json
<name>.clas.abap	1	ABAP	-	z_aff_example_clas.clas.abap
<name>.clas.definitions.abap	0...1		-	z_aff_example_clas.clas.definit
<name>.clas.implementations.abap	0...1		-	z_aff_example_clas.clas.impleme
<name>.clas.macros.abap	0...1		-	z_aff_example_clas.clas.macros.
<name>.clas.testclasses.abap	0...1		-	z_aff_example_clas.clas.testcla
<name>.clas.texts.<lang>.properties	0...n	Text Elements	-	z_aff_example_clas.clas.texts.e

Some classes store local types in only one include. These classes do not provide includes for class-relevant local types, local types and macros. In this case, local classes are stored in the file z_aff_example_clas.clas.locals.abap .

ABAP - Community

Lars Hvam

- abapGit
- abaplint
- abapOpenChecks
- open-abap
- ABAP-Swagger
- abapGitServer
- ABAP VSC Extension
- Exercism
- dotabap.org



ABAP - Community



abapGit

ABAP - Community

dotabap



.abap Find a project Sort ▾ Filter ▾ + Add Project Fork Me BestOfUI5

ABAP Open Source Projects

Projects: 227

Total: 1.3m

Cron passing

 **abapGit** created by sbcgua
8 years ago
Git client for ABAP
MIT License

Git <https://github.com/abapGit> 
★ 1083 </> 143.5k  2022/09/22 

 **mockup_loader** created by sbcgua
7 years ago
ABAP unit testing
framework, prepare in
Excel, reuse in abap
code
MIT License

Git https://github.com/sbcgua/mockup_loader 
★ 54 </> 8.7k  2022/09/21 

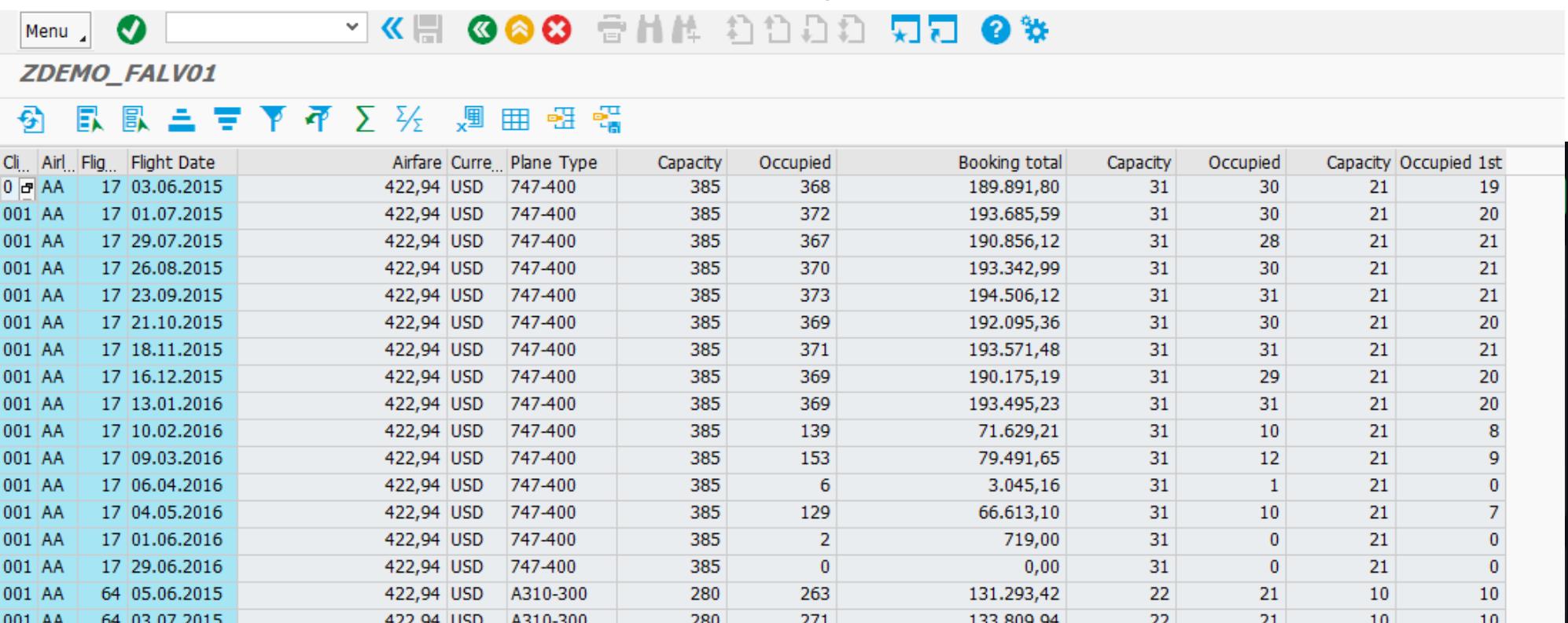
 **ajson** created by sbcgua
2 years ago
Yet another json parser
serializer for ABAP
MIT License

Git <https://github.com/sbcgua/ajson> 
★ 29 </> 9.7k  2022/09/21 

 **abap-openapi-ui** created by geert-

 **ABAP-SDK-for-**

ABAP - Community



The screenshot shows an ABAP application interface with a toolbar at the top containing various icons for navigation and operations. Below the toolbar, the title "ZDEMO_FALV01" is displayed. The main area contains a grid of flight data with the following columns: Client ID, Airline, Flight Number, Flight Date, Airfare, Current Currency, Plane Type, Capacity, Occupied, Booking total, Capacity, Occupied, Capacity, and Occupied 1st. The data spans from 03.06.2015 to 03.07.2015, showing various flight details and financial metrics.

Client ID	Airline	Flight Number	Flight Date	Airfare	Current Currency	Plane Type	Capacity	Occupied	Booking total	Capacity	Occupied	Capacity	Occupied 1st
0	AA	17	03.06.2015	422,94	USD	747-400	385	368	189.891,80	31	30	21	19
001	AA	17	01.07.2015	422,94	USD	747-400	385	372	193.685,59	31	30	21	20
001	AA	17	29.07.2015	422,94	USD	747-400	385	367	190.856,12	31	28	21	21
001	AA	17	26.08.2015	422,94	USD	747-400	385	370	193.342,99	31	30	21	21
001	AA	17	23.09.2015	422,94	USD	747-400	385	373	194.506,12	31	31	21	21
001	AA	17	21.10.2015	422,94	USD	747-400	385	369	192.095,36	31	30	21	20
001	AA	17	18.11.2015	422,94	USD	747-400	385	371	193.571,48	31	31	21	21
001	AA	17	16.12.2015	422,94	USD	747-400	385	369	190.175,19	31	29	21	20
001	AA	17	13.01.2016	422,94	USD	747-400	385	369	193.495,23	31	31	21	20
001	AA	17	10.02.2016	422,94	USD	747-400	385	139	71.629,21	31	10	21	8
001	AA	17	09.03.2016	422,94	USD	747-400	385	153	79.491,65	31	12	21	9
001	AA	17	06.04.2016	422,94	USD	747-400	385	6	3.045,16	31	1	21	0
001	AA	17	04.05.2016	422,94	USD	747-400	385	129	66.613,10	31	10	21	7
001	AA	17	01.06.2016	422,94	USD	747-400	385	2	719,00	31	0	21	0
001	AA	17	29.06.2016	422,94	USD	747-400	385	0	0,00	31	0	21	0
001	AA	64	05.06.2015	422,94	USD	A310-300	280	263	131.293,42	22	21	10	10
001	AA	64	03.07.2015	422,94	USD	A310-300	280	271	133.809,94	22	21	10	10

FALV

FALV - Fast ALV Grid <http://abapblog.com/falv>

Changes V 740.1.0.19

<https://github.com/fidley/falv>

About

FALV - Fast ALV Grid

🔗 abapblog.com

open-source sap abap abapgit

📄 Readme

GPL-3.0 license

⭐ 101 stars

⌚ 25 watching

🍴 45 forks

Releases 5

🔗 v740.1.0.14 Latest

on 27 Feb 2017

+ 4 releases

ABAP - Community

ABAP Logger

SAP Logging as painless as any other language.

ABAP Version: 702 or higher

See the [mission statement](#)

Features

- Record message in [Application Log\(BC-SRV-BAL\)](#)
- Display message

Installation

- Install this project via [ABAPGit](#).

Contributors 19



[+ 8 contributors](#)

ABAP - Community

README.md

abap2xlsx - Read and generate Excel Spreadsheets with ABAP

For general information please refer to the blog series [abap2xlsx - Generate your professional Excel spreadsheet from ABAP](#) and the [documentation](#). Please refer to the official wiki for the [abapGit installation guide](#). Note that the [Demo programs](#) are provided in a [separate repository](#), and can be installed after abap2xlsx.

For questions, bug reports and more information on contributing to the project, please refer to the [contributing guidelines](#).

ABAP - Community

ZThread

Simple parallel execution via Threads implemented in ABAP, based on JAVA Thread and its *Runnable* interface plus callback capabilities. Check the [blog post](#) for more details. Check the ABAPDocs for API information.

```
data(someProcessing) = new zcl_some_processing( some_data ).  
data(anotherProcessing) = new zcl_some_other( some_data ).  
  
new zcl_thread( someProcessing )->start( ).  
new zcl_thread( anotherProcessing )->start( ).  
  
"waits for threads to finish"  
zcl_thread->join_all( ).  
  
write: 'All done!'
```

You can check the ABAP Docs for info and the source for examples. Feel free to provide new examples or collaborate with this.

ABAP - Community

ZTOAD

SAP ABAP SQL Editor

Type here your query title

```
04.02.2022 10:41:47
04.02.2022 10:41:56
04.02.2022 10:42:02
04.02.2022 14:46:05
04.02.2022 14:46:21
04.02.2022 14:50:16
04.02.2022 14:53:47
07.02.2022 10:24:55
09.02.2022 11:54:13
09.02.2022 11:55:21
09.02.2022 11:55:29
09.02.2022 11:55:34
09.02.2022 11:55:47
09.02.2022 11:55:51
09.02.2022 11:55:53
09.02.2022 11:55:57
```

* Type here your query title

```
1
2
3
4
SELECT SINGLE * FROM VBAP
```

ABAP | Ln 3 Col 26 | NUM

Refresh | Find | Value list

SAP Table/Fields	Description
VBAP	Sales Document: Item ...
MANDT	Client
VBELN	Sales Document
POSNR	Sales Document Item
MATNR	Material Number
MATWA	Material entered
PMATN	Pricing Reference Mate...
CHARG	Batch Number
MATKL	Material Group
ARKTX	Short text for sales ord...
PSTYV	Sales Document Item ...
POSAR	Item type
LFREL	Item is relevant for deli...
FKRFI	Relevant for Billing

SELECT SINGLE * FROM VBAP

VBELN	Item	Material	Material entered	PMATN	Batch	MATKL	Description	PSTYV	POSAR	LFREL	FKREL	UEPOS	GRPOS	ABGRU	PRODH	ZWERT	ZMENG	ZIEME	UMZIZ	UMZIN	Unit	SMENG	ABLFZ	ABDAT	ABSFZ	POSEX	KDMAT	KBVER	KEVER	VKG RU	Usage	GRKOR	FMENG	
119	10	0BB300011C	0BB300011C		01	ALLRADANTRIEB	KLN											0.00	1,000	PC	1	1	PC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Query executed in 0.02 seconds. 1 entries found

ABAP - Community

open-abap and transpiler

```
1 DATA lv_string_1 TYPE STRING.  
2 DATA lv_string_2 TYPE STRING.  
3 DATA lv_string_3 TYPE STRING.  
4  
5 lv_string_1 = 'hello'.  
6  
7 lv_string_2 = | world|.  
8  
9  
10 lv_string_3 = |{ lv_string_1 }{ lv_string_2 }|.   
11  
12 WRITE lv_string_3.  
13
```

```
1 let lv_string_1 = new abap.types.String({qualifiedName: "STRING"});  
2 let lv_string_2 = new abap.types.String({qualifiedName: "STRING"});  
3 let lv_string_3 = new abap.types.String({qualifiedName: "STRING"});  
4 lv_string_1.set(new abap.types.Character({length: 5}).set('hello'));  
5 lv_string_2.set(new abap.types.String().set(` world`));  
6 lv_string_3.set(new abap.types.String().set(`${abap.templateFormatting(  
7 abap.statements.write(lv_string_3);
```

```
1 hello world
```

ABAP - Community

{`}` **exercism** Home Language Tracks Contribute Mentor Donate ❤️

[Sign up](#) [Log in](#)

 **ABAP** 4,544 students

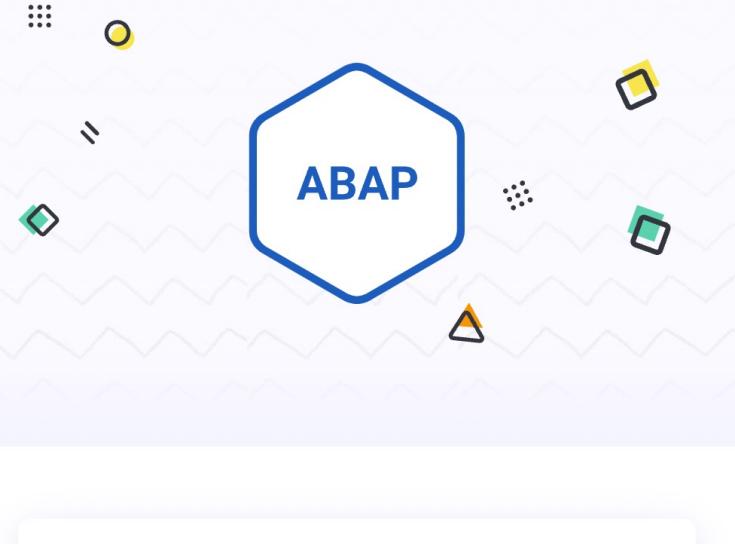
[About](#) [Exercises](#)

 11 contributors
124 mentors

Want to learn and master ABAP?

Join Exercism's ABAP Track for access to **30 exercises** with automatic analysis of your code and **personal mentoring**, all **100% free**.

[+ Join the ABAP Track](#) [Explore exercises](#)



About ABAP

ABAP - Community

ADT Plugins

- [ABAPQuickFix](#)
- [Task Scanner for ABAP](#)
- [ADT Classic Outline](#)
- [ABAP Favorites](#)
- [ABAP Code Insight](#)
- [ABAP development tools plug-in for abapGit](#)

ABAP - Community

Visual Studio Code Plugins

- [ABAP syntax highlighting](#)
- [ABAP snippets](#)
- [ABAP remote filesystem](#)
- [abaplint](#)

UI5 - SAP



OpenUI5

- <https://openui5.org/>

UI5 - SAP

The First Stable Release 1.0 is Here!

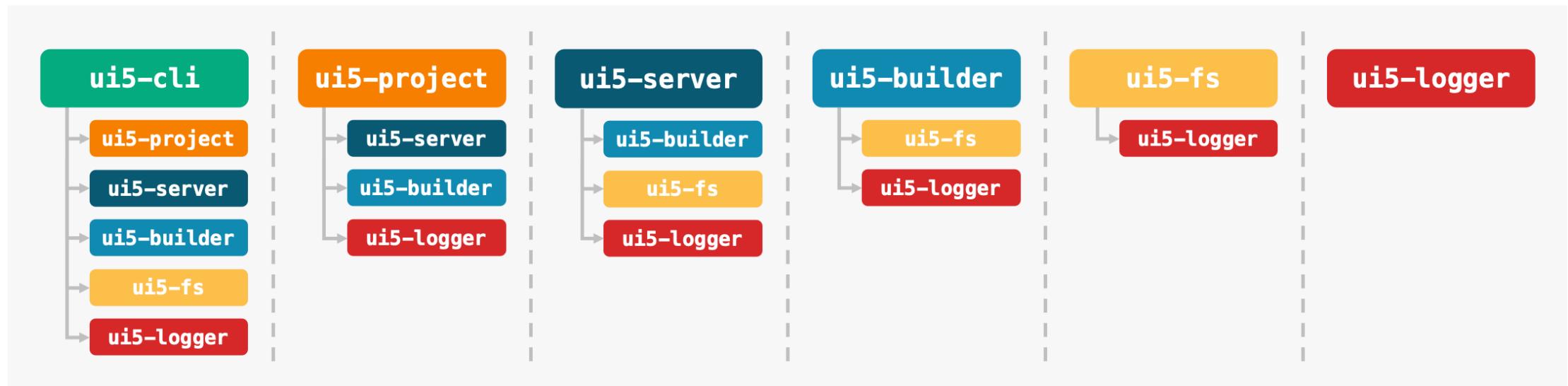
Check it

UI5 Web Components

Enterprise-flavored sugar on top of native APIs!

UI5-SAP

UI5 Tooling



UI5-SAP



chrome web store



marianbsp@gmail.com ▾

Startseite > Erweiterungen > UI5 Inspector



UI5 Inspector

★★★★★ 106 ⓘ

Entwickertools | 40.000+ Nutzer

Aus Chrome entfernen

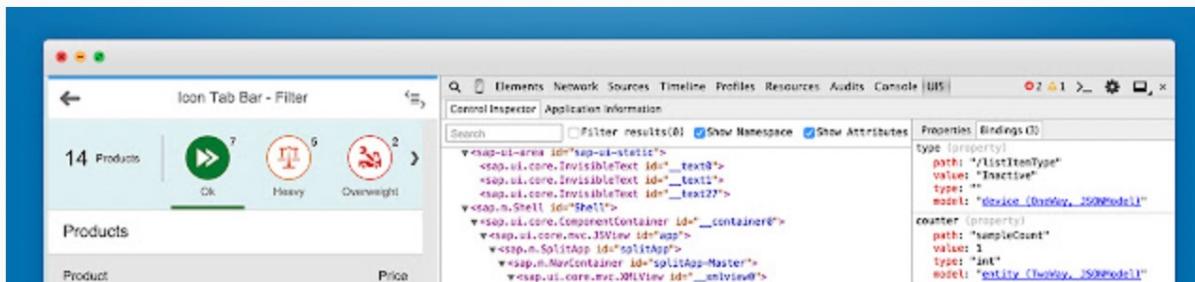
Übersicht

Umgang mit dem Datenschutz

Meinungen

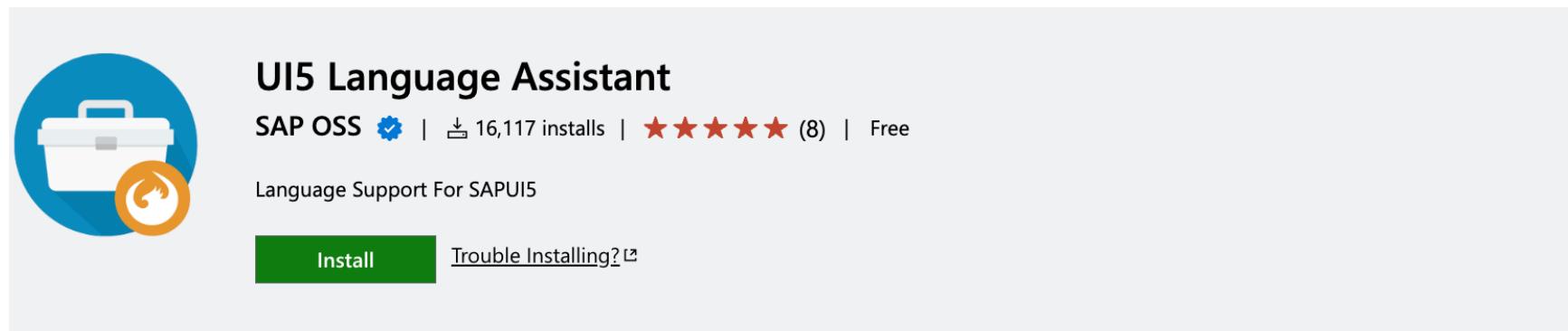
Support

Ähnliche



<https://chrome.google.com/webstore/detail/ui5-inspector/bebecogbafbighaildooiibpcnbngo?hl=de>

UI5-SAP



Overview Version History Q & A Rating & Review

UI5 Language Support

This VS Code extension provides SAPUI5 language editor support.

Features

XML Views Auto-Complete/Context-Assist

A screenshot of the VS Code interface showing an XML file named "App.view.xml". The code is as follows:

```
<mvc:View
  xmlns:mvc="sap.ui.core.mvc">
  <mvc:content>
  </mvc:content>
</mvc:View>
```

The code editor shows syntax highlighting and intellisense suggestions for the XML tags.

Categories

Programming Languages

Tags

json OpenUI5 SAPUI5 UI5

Works with

Universal

Resources

[Repository](#)

[License](#)

[Changelog](#)

[Download Extension](#)

Project Details

[sap/ui5-language-assistant](#)

Last Commit: 3 weeks ago

<https://marketplace.visualstudio.com/items?itemName=SAPOSS.vscode-ui5-language-assistant>

UI5 - Community

Best of UI5

The screenshot shows the homepage of the Best of UI5 website. At the top, there is a navigation bar with links for "Hot Packages", "All Packages", "Tags", "Applications", "Timeline", and "Contributors". A search bar is located below the navigation bar. The main content area features a large title "Best of UI5" and a section titled "Packages" displaying two items:

- ui5-cc-chart** (npm) - UI5 Custom Control: Chart.js. It has 16 downloads and was updated 4 months ago. Tags: CUSTOMCONTROL, DOWNLOADS 16, UPDATED 4 MONTHS AGO, BEER-WARE.
- ui5-middleware-webjars** (npm) - UI5 middleware for delivering content from JAR files.

<https://bestofui5.org/>

UI5 - Community

 **UI5 Community**

The organization hosts community projects around UI5, like UI5 libraries, UI5 custom controls, UI5 Tooling related extensions, e.g. middlewares and tasks.

<https://ui5-community.github.io/>

[Unfollow](#)

[Overview](#) [Repositories 28](#) [Projects 2](#) [Packages](#) [Teams 1](#) [People 19](#) [Settings](#)

Pinned

 [ui5-community](#) Public

UI5 Community Home

21 stars 2 forks

 [bestofui5-website](#) Public

"Best of UI5" is the new entry page for the ui5-community.

TypeScript 16 stars 3 forks

 [ui5-ecosystem-showcase](#) Public

A repository showcasing the UI5 tooling extensibility to combine OSS tools for UI5 application development.

JavaScript 152 stars 63 forks

 [wdi5](#) Public

cross-platform test framework for UI5 web-apps. wdi5 = Webdriver.IO + UI5 Test API

TypeScript 57 stars 22 forks

[Customize pins](#)

 [View as: Public](#) ▾

You are viewing the README and pinned repositories as a public user.

You can create a README file visible to anyone.

[Get started with tasks](#) that most successful organizations complete.

People



[Invite someone](#)

<https://github.com/ui5-community>

UI5 - Community

Generator for OpenUI5/SAPUI5 projects

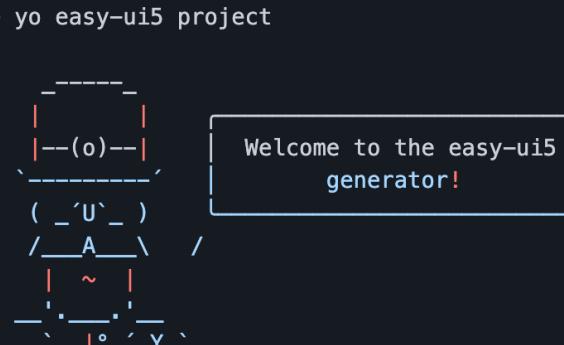
easy-ui5 generator openUI5 slack
Run test passing license Apache-2.0 code style prettier node >=16 nvm enabled

Generator which use the official UI5 tooling and support multiple deployment targets such as the SAP Business Technology Platform. This generator was build as a plug-in for the community project [Easy-UI5](#) by SAP.

As of version `0.1.0`, we strive to share core functionality (such as webapp scaffolding) with SAP's [open-ux-tools](#) effort, which is "a set of tools and libraries that makes it faster and easier to develop SAP Fiori applications".

Usage with easy-ui5

```
$> npm i -g yo
$> yo easy-ui5 project
```



The terminal shows the command to install the generator and then run it to create a project. A terminal window displays the generator's logo (a stylized face) and a box containing the text "Welcome to the easy-ui5 generator!".

UI5 - Community

wdi5 

wdi5 (/wdi5/) is a [Webdriver.IO](#) service (think: extension), utilizing [UI5](#)'s test API.
It is used for end-to-end tests of a UI5 web-application.

-  Documentation is at <https://ui5-community.github.io/wdi5/>
-  Roadmap: <https://github.com/orgs/ui5-community/projects/2/views/1>
-  Please use GitHub's [Issues](#) for support and questions
-  The [#wdi5 slack channel](#) is a place for friendly curiosity-driven talk about wdi5 ([sign-up link](#))
-  watch the [Discussions](#) and the [@_wdi5_](#) twitter account for announcements

UI5 - Community

 DSAG

Search DSAG's UI5 Best Practice guide

Deployments

Design Guidelines

Error Handling

Fiori Elements vs. Freestyle

i18n

Model View Controller

Naming Conventions

OData

Performance

Routing and Navigation

Testing

Welcome to the DSAG's UI5 Best Practice Guide

If you want to contribute, head over to the GitHub Repository: [DSAG's UI5 best practice guide](#)

Because the DSAG UI5 best practice guide is a living document 🤖 - thriving on and with its' community 😊

Table of Contents

- Deployments
- Design Guidelines
- Error Handling
- Error Handling Best Practices

CAP - Community

- [PostgreSQL adapter for SAP CDS \(CAP\)](#)
- [MySQL adapter for SAP CDS \(CAP\)](#)
- [Core Data Services – Database Migrations](#)
- [Azure AD and Azure AD B2C Custom-Defined Authentication for SAP CDS \(CAP\)](#)
- [Launchpad Plugin for SAP CAP-based projects](#)

BTP - SAP



Rui Nogueira

March 17, 2022 | 4 minute read

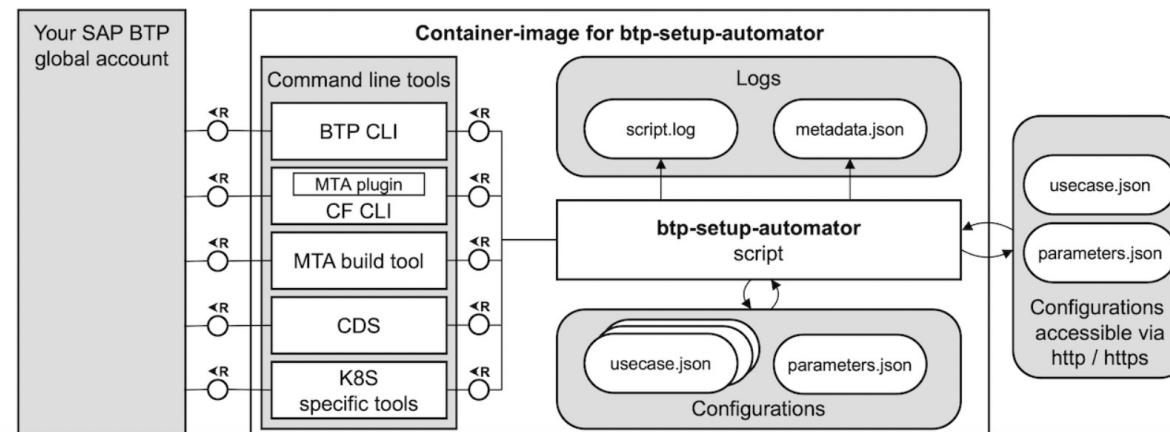
Automating the setup of your SAP BTP account with btp-setup-automator

Follow

23 comments 47 likes 5,075 views

Like

RSS Feed



Survey

- 23 Participants:
 - 100% work with ABAP / 50% with JS/TS
 - 50% work with SAP more than 10 years / rest between 3 and 10 years
 - 50% work in companies with more than 1000 Employees
 - 50% use Open Source Components

Which Open Source Components do you use?

cds-Launchpad-plugin
Openapi-UI CodePal

abap2xlsx
aJson

abapGit

ABAPlinter nodejs OpenUI abapOpenChecks

ABAP easy-ui

ui5-tooling

cds-pg

Which sources do you use to find Open Source Components?

announcements by SAP Open Source
dotabap GitHub Google
SAP Blogs oss Page SAP Community
Twitter

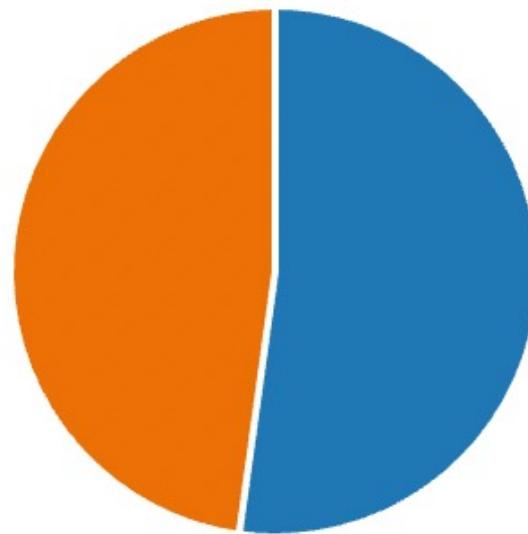
Do you also contribute in the open source area in any form (open issues, create components etc.)?

● Yes

12

● No

11



What's stopping you from contributing?

ID ↑	Name	Antworten
1	anonymous	not enough time
2	anonymous	Time and knowledge.
3	anonymous	No Time

What would make you contribute?

ID ↑	Name	Antworten
1	anonymous	more time

How have you benefited most from your contributions?

Visibility

gaining Knowledge

getting to know People

saving time not reinventing the wheel

Upskilling

Faster delivery times

good feeling to be Part of a great movement

By growing professionally

new customers

What to
do?

Consider

Use

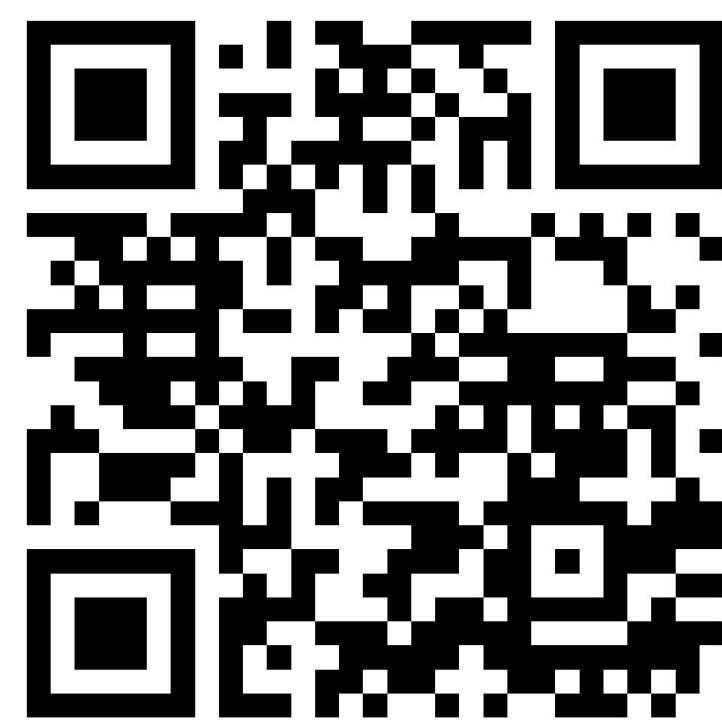
Contribute



Survey

<https://forms.office.com/r/6GYPLP2dny>

Links/
Survey Data



<https://github.com/marianfoo/marianfoo>

LinkedIn: mrianzeis.de

Twitter [Mianbsp](https://twitter.com/Mianbsp) GitHub [marianfoo](https://github.com/marianfoo)