



**abapGit** &



**apm**

**Taking your development to the next level  
with open-source ABAP**

Marc Bernard - November 2024

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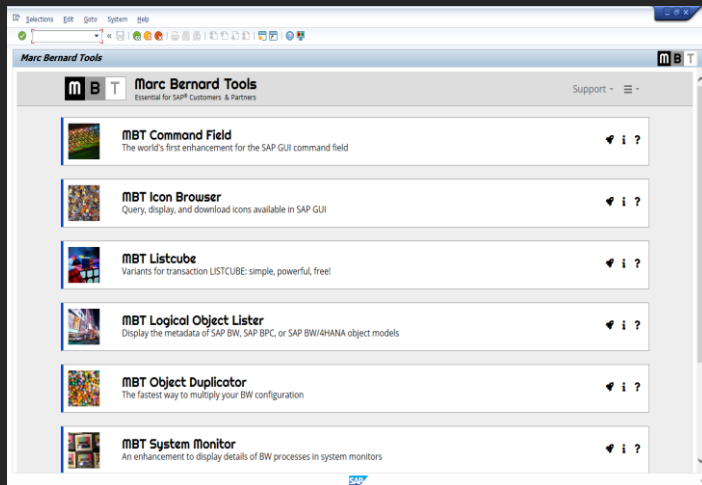
# Marc Bernard



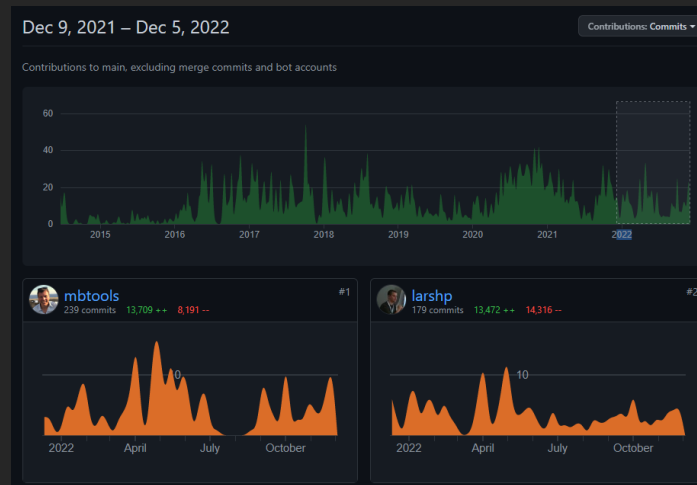


# Marc Bernard

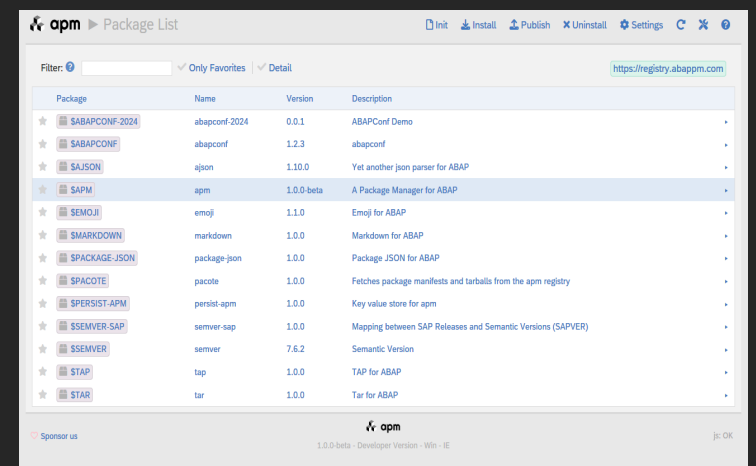
Building awesome open-source tools  
for SAP customers, partners, and developers



Marc Bernard Tools



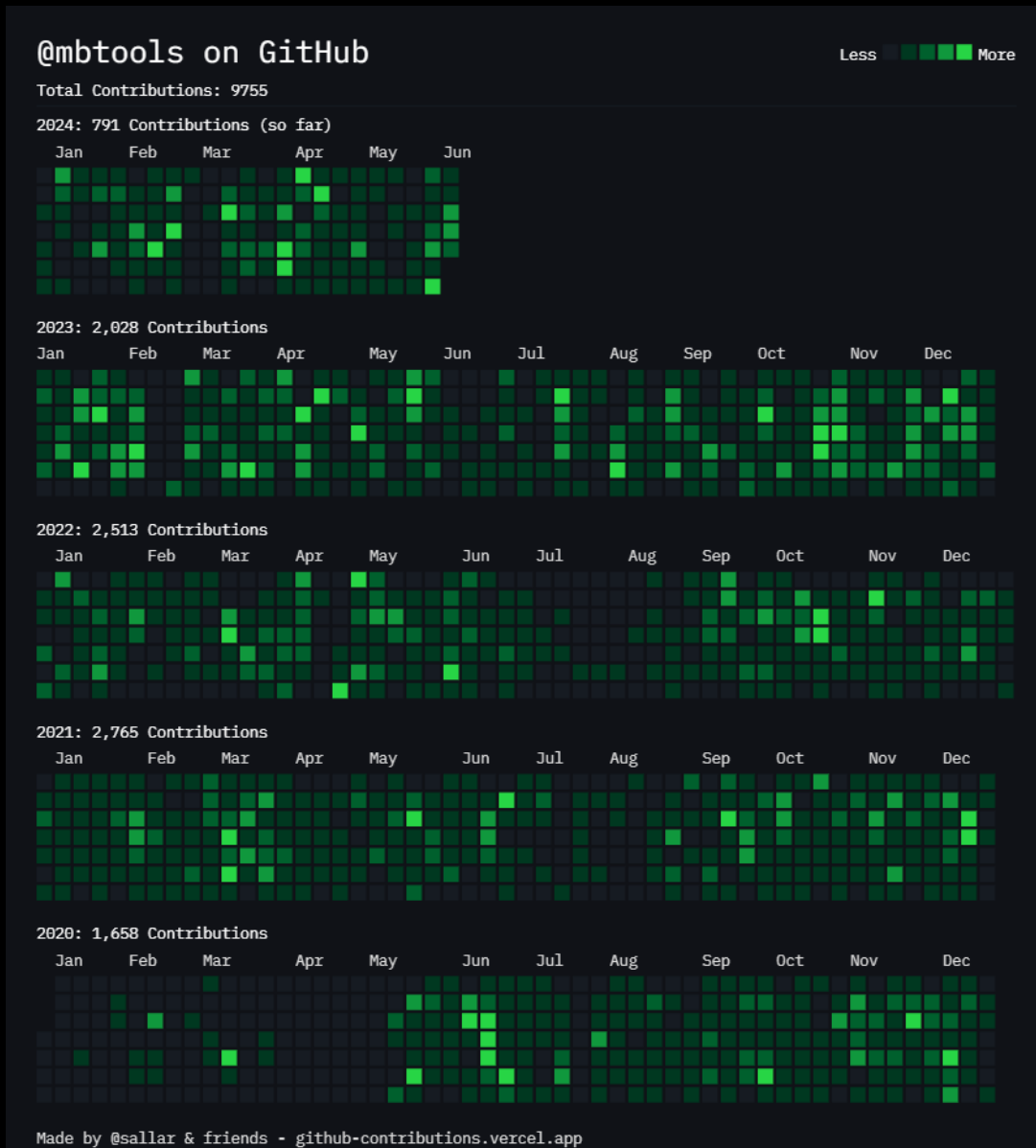
Top Contributor to abapGit



Package	Name	Version	Description
★ SABAPCONF-2024	abapconf-2024	0.0.1	ABAPConf Demo
★ SABAPCONF	abapconf	1.2.3	abapconf
★ SAJSON	ajson	1.10.0	Yet another json parser for ABAP
★ SAPM	apm	1.0.0-beta	A Package Manager for ABAP
★ SEMOJI	emoji	1.1.0	Emoji for ABAP
★ SMARKDOWN	markdown	1.0.0	Markdown for ABAP
★ SPACKAGE.JSON	package-json	1.0.0	Package JSON for ABAP
★ SPACOTE	pacote	1.0.0	Fetches package manifests and tarballs from the apm registry
★ SPERSIST-APM	persist-apm	1.0.0	Key value store for apm
★ SSEMVER-SAP	semver-sap	1.0.0	Mapping between SAP Releases and Semantic Versions (SAPVER)
★ SSEMVER	semver	7.6.2	Semantic Version
★ STAP	tap	1.0.0	TAP for ABAP
★ STAR	tar	1.0.0	Tar for ABAP

Creator of apm



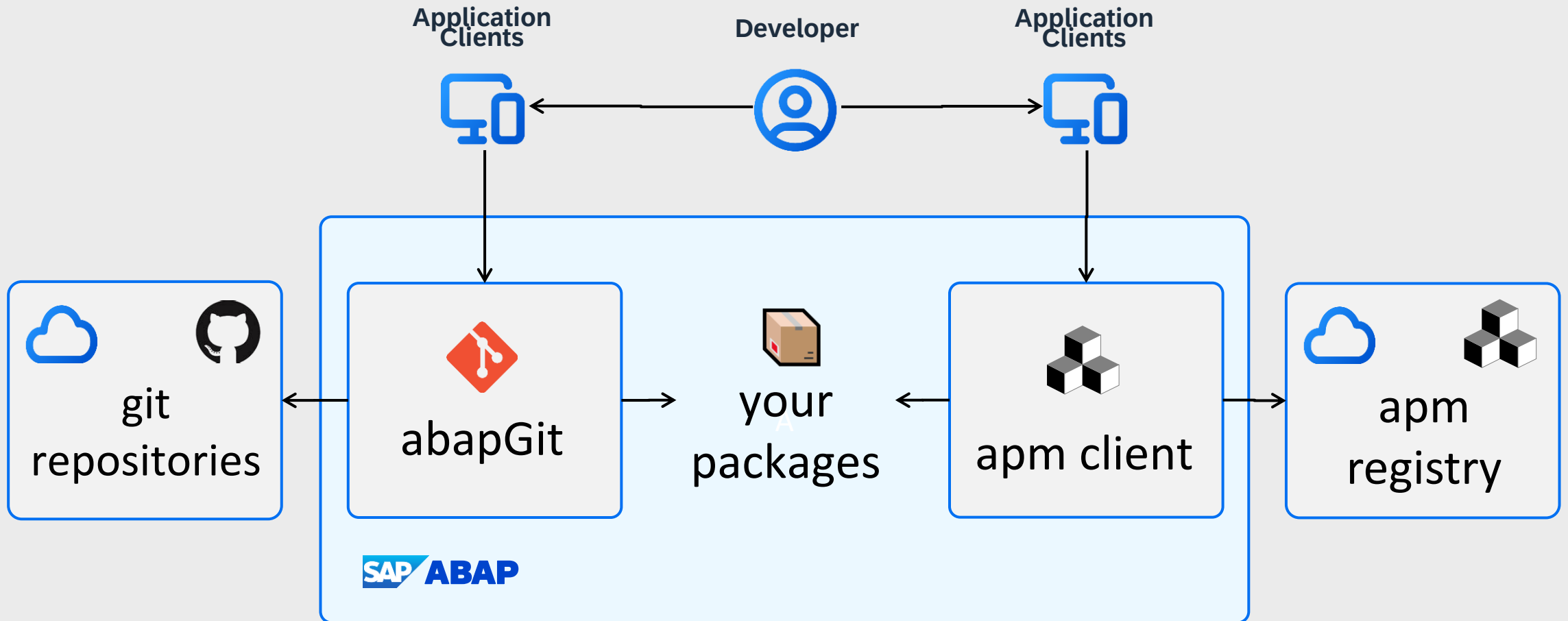


## My Open-Source Contributions

- [abapGit](#) - Too many to count
- [abaplint](#) - Some little additions and improvements
- [ajson](#) - Added diff and sort utilities
- [ABAP Logger](#) - Maintenance, fixes, down ports
- [ABAP Mime Editor](#) - Added editor for W3MI objects
- [Monaco](#) - Update to ABAP 7.5x language syntax
- [Shields](#) - Added badges for "[ClearlyDefined Score](#)" and "[GitHub Check Runs](#)"
- [TODO to Issue Action](#) - Added support for ABAP
- [Exercism](#) - One of the initial creators of the ABAP Track and contributor to several exercises
- [Verdaccio](#) - Improving the UI theme, docs, and more
- [SPDX](#) - Improving notes about GPL licenses
- [Suffusion](#) - Lead maintainer of WordPress Theme
- [React JSON View](#) - Clipboard integration
- [npm](#) - Improving docs, fixing bugs, replacing dependencies ([cli](#), [semver](#), [pacote](#), [npm-registry-fetch](#), [promise-spawn](#))



# Overview Diagram





# abapGit



# What is git ?

High-quality version control system

Installed locally (rather than in the cloud)

Specially designed for text files

Sophisticated branching model

Is **free** and open source





# What is GitHub ?

Hosting service for Git repositories

Exclusively cloud-based

Intuitive, graphically represented user interface

Built-in control and task-management tools

For-profit but offers a **free** tier



# What is abapGit ?

Git client for ABAP (started in 2014 by Lars Hvam)

Works with GitHub, GitLab, Assembla, Bitbucket, abapGit-Server, AWS, TFS, Azure DevOps and more

ABAP version 7.02 or higher

It's **free** and open source



# Demo: abapGit on GitHub



## Welcome

abapGit is an open source git client for ABAP, maintained and built by the community.

Documentation



GitHub



Latest build



Eclipse plugin

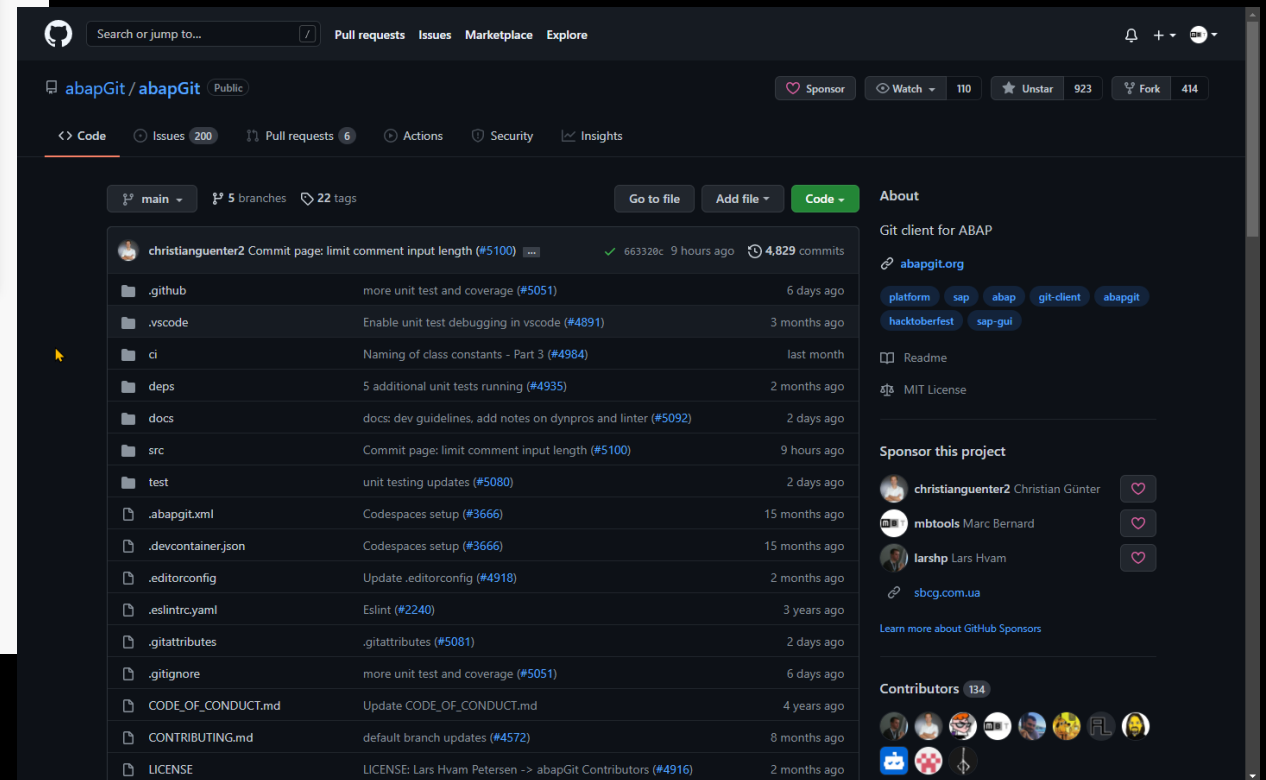


dotabap.org



<https://abapgit.org>

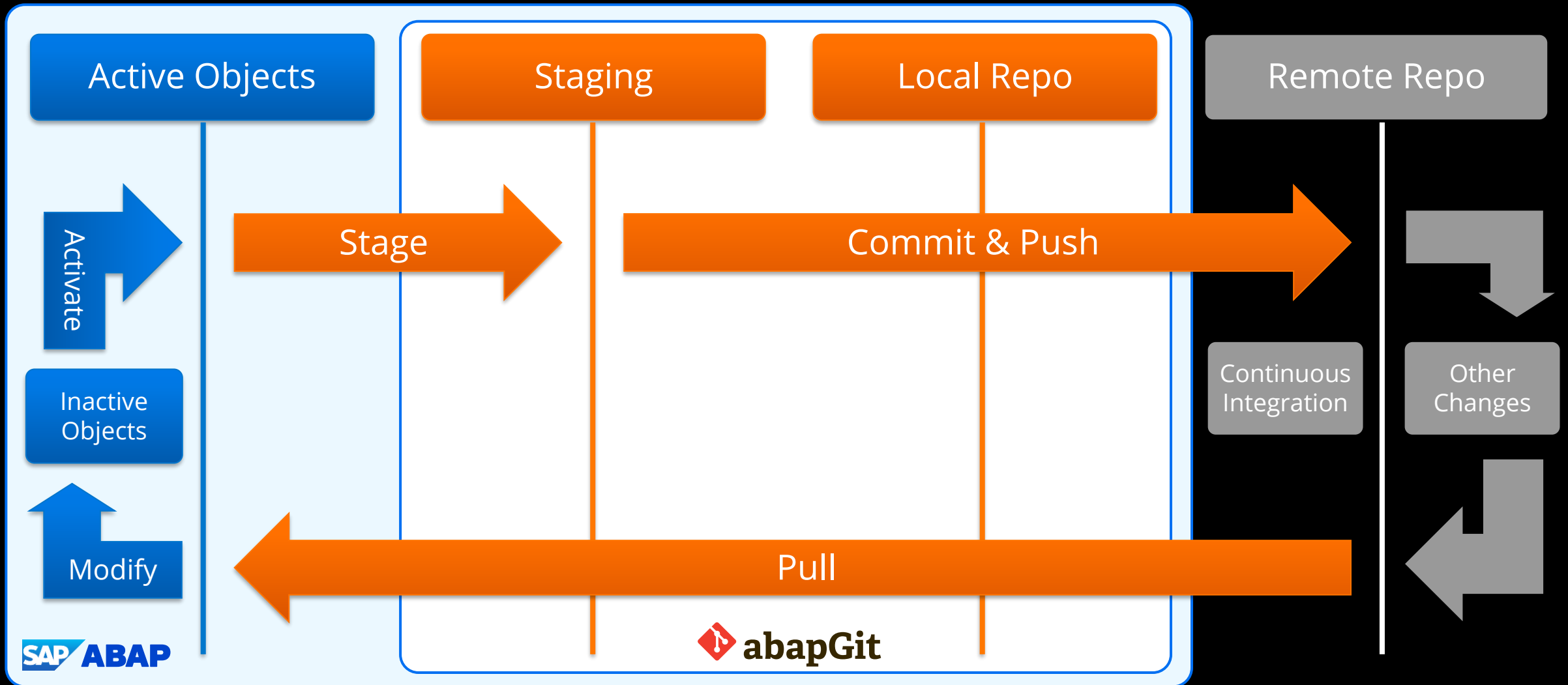
<https://github.com/abapGit/abapGit>



The screenshot shows the GitHub repository page for `abapGit/abapGit`. The repository is public and has 110 watchers, 923 stars, and 414 forks. It has 5 branches and 22 tags. The commit history shows a recent commit by `christiangunter2` titled "Commit page: limit comment input length (#5100)" 9 hours ago. The repository contains several files and folders, including `.github`, `.vscode`, `ci`, `deps`, `docs`, `src`, `test`, `.abapgit.xml`, `.devcontainer.json`, `.editorconfig`, `.eslintrc.yaml`, `.gitattributes`, `.gitignore`, `CODE_OF_CONDUCT.md`, `CONTRIBUTING.md`, and `LICENSE`. The repository is licensed under the MIT License. The page also features a "Sponsor this project" section with sponsors like `christiangunter2`, `mbtools`, and `larshp`. The "Contributors" section lists 134 contributors.



# Continuous Development





# ABAP Open Source





Find a project



Sort ▾

Filter ▾

<https://dotabap.org>

+ Add Project

Fork Me



BestOfUI5

## ABAP Open Source Projects

Projects: 294

Total: 1.9m </>

Cron passing



**gwtools** created by  
attilaberencsi 3 years ago  
Gateway Tools  
MIT License

Git <https://github.com/attil>

★ 18 </> 966 2024/11/10



**ValueObjects**  
created by rob786541 23 days ago  
ABAP value objects  
MIT License

Git <https://github.com/rob>

★ 0 </> 2.4k 2024/11/10



**abap2UI5** created by  
abap2UI5 2 years ago  
Developing UI5 Apps  
Purely in ABAP  
MIT License

Git <https://github.com/aba>

★ 298 </> 35k 2024/11/10



**ZAP** created by abeljohny  
7 years ago  
Tiny DSL in ABAP for  
rapid report prototyping  
GNU General Public  
License v2.0

Git <https://github.com/abe>

★ 2 </> 687 2024/11/09



**abap-dev-  
utilities** created by  
jrodriguez-rc 4 years ago  
ABAP Development  
Utilities  
MIT License

Git <https://github.com/jroc>

★ 70 </> 10.3k 2024/11/08



**abap-odata-test**  
created by bluefunda 8 days ago  
ABAP OData Test Tools  
MIT License

Git <https://github.com/blu>

★ 1 </> 1.2k 2024/11/07



# Reasons Developers ❤️ Open Source

Collaboration & Community

Flexibility & Customization

Learning & Development

Innovation

Cost

Quality



# What's Missing

Centralized Source of Packages

Version Management

Dependency Management

Ease of Use

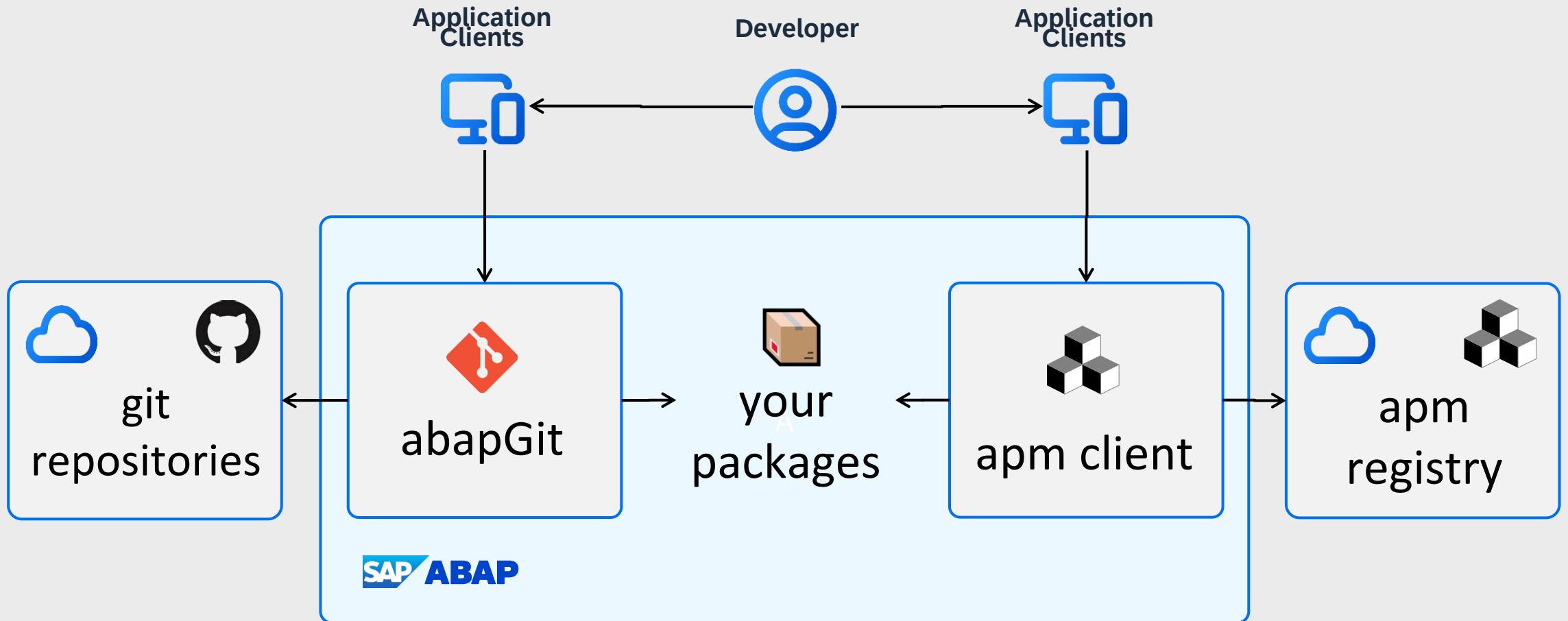
Collaboration & Sharing

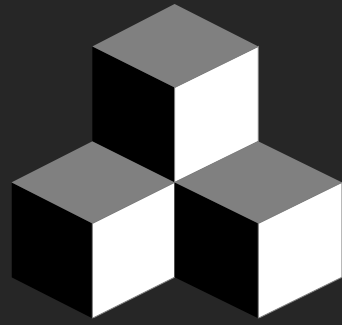
Simplified Deployment



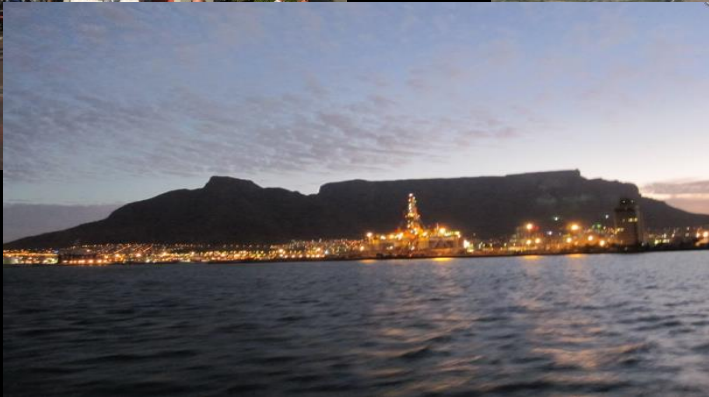


# Overview Diagram





apm



# What is apm?

Package Manager for ABAP 

apm Website 

apm Registry 



# The apm Website

<https://abappm.com>

Entry to the  
World of Package Management for ABAP


Guides & Documentation

Account Management  
(8€/user/month)





# The apm Website



abapconf-2024-south-africa

ABAPConf Demo South Africa


abap


apm


package-manager


sap


tools

 Marc Bernard

 v1.0.0

 Published 4 hours ago

 66.5 kB

 MIT

emoji

Emoji for ABAP


abap


apm


package-manager


sap


tools

 Marc Bernard

 v1.0.0


 Published 4 hours ago


 1.1 MB


 MIT


semver


The semantic version parser used by npm.

 GitHub Inc.

 v7.6.3


 Published 21 minutes ago

 281.0 kB

 ISC



# The apm Website





README

DEPENDENCIES

VERSIONS

Version **v1.1.0**

License **MIT** Contributor Covenant **2.1** REUSE **compliant**

 **ABAP-Emoji** 

Emoji for ABAP

Made by [Marc Bernard Tools](#) giving back to the [SAP Community](#)





NO WARRANTIES, [MIT License](#)


Based on [Twitter Emoji](#) and [Twemoji Amazing](#) (MIT License)




**Prerequisite**



HTML output with Internet connection since Emoji graphics are hosted on  
<https://twemoji.maxcdn.com/>


**emoji**  
Emoji for ABAP  
Latest v1.0.0 - Published 4 hours ago


   

 **FUND THIS PACKAGE**

**Installation**   
 `apm install emoji@1.0.0` 

**Repository**  
 <https://github.com/abappm/abappm.git> 

**ABAP Release**  
 `>7.5.0`

**apm Version**  
 `>=1`

**Distribution**  

File Count: 16

Size: 1.1 MB



# Sidenote

**All JavaScript Developers, Repeat After Me...**

**apm ne npm**

**npm !== apm**



# The apm Registry

<https://registry.abappm.com>

Database for  
Package Metadata, Readmes, and Tarballs

API for apm Client

**Free to Browse,**  
Fee to Download & Publish



# The apm Client

Standalone and developer versions (like abapGit)

Runs in SAP GUI (like abapGit)


ABAP version 7.50 or higher  
(down-ports planned)

**Free** and open source



















# Package List

 **apm** ▶ Package List

InitInstallPublishUninstallSettings

Filter:  Only Favorites Detail <https://registry.abapm.com>

Package	Name	Version	Description
★  \$ABAPCONF-2024	abapconf-2024	0.0.1	ABAPConf Demo
★  \$ABAPCONF	abapconf	1.2.3	abapconf
★  \$AJSON	ajson	1.10.0	Yet another json parser for ABAP
★  \$APM	apm	1.0.0-beta	A Package Manager for ABAP
★  \$EMOJI	emoji	1.1.0	Emoji for ABAP
★  \$MARKDOWN	markdown	1.0.0	Markdown for ABAP
★  \$PACKAGE-JSON	package-json	1.0.0	Package JSON for ABAP
★  \$PACOTE	pacote	1.0.0	Fetches package manifests and tarballs from the apm registry
★  \$PERSIST-APM	persist-apm	1.0.0	Key value store for apm
★  \$SEMVER-SAP	semver-sap	1.0.0	Mapping between SAP Releases and Semantic Versions (SAPVER)
★  \$SEMVER	semver	7.6.2	Semantic Version
★  \$TAP	tap	1.0.0	TAP for ABAP
★  \$TAR	tar	1.0.0	Tar for ABAP

 **apm**

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1.0.0-beta - Developer Version - Win - IE

js: OK



# Version Management

Semantic Versioning of Packages

`"version": "1.2.4"`

Semantic Version Ranges for  
Specifying Dependencies

`"asjson": ">=1.10.0 >=2"`



# Dependencies

“dependencies”

Your package requires dependency in system namespace  
(**installed together**)

“devDependencies”

Your package requires dependency  
but **not** in test or production systems



# Dependencies

“peerDependencies”


Your package requires dependency in system namespace  
(**installed separately**)

“bundleDependencies”


Dependency is included in your package  
(**imported and renamed**)




# Package View > Readme

 **apm** ▶ Package View

Readme package.abap.json Back

 \$EMOJI

 README.md

Version v1.1.0

License MIT Contributor Covenant 2.1 REUSE compliant

## ✦ ABAP-Emoji ✦

Emoji for ABAP

Made by [Marc Bernard](#) giving back to the [SAP Community](#)

Based on [Twitter Emoji](#) and [Twemoji Amazing](#) (MIT License)

NO WARRANTIES, [MIT License](#)

### Prerequisite

HTML output with Internet connection since Emoji graphics are hosted on <https://twemoji.maxcdn.com/>.

### Installation


You can install ABAP Emoji using [abapGit](#) either creating a new online repository for [https://github.com/Marc-Bernard-Tools/ABAP\\_Emoji](https://github.com/Marc-Bernard-Tools/ABAP_Emoji) or downloading the repository [ZIP file](#) and creating a new offline repository.

We recommend to use package `$EMOJI`.







# Package View › Manifest

 **apm** ▶ Package View

Readme package.abap.json Back


 \$APM

 package.abap.json

```
{
  "name": "apm",
  "version": "1.0.0-beta",
  "description": "A Package Manager for ABAP",
  "keywords": [
    "abap",
    "apm",
    "package-manager",
    "sap",
    "tools"
  ],
  "homepage": "https://abapm.com",
  "bugs": {
    "url": "https://github.com/abapm/abapm/issues"
  },
  "license": "MIT",
  "author": {
    "name": "Marc Bernard",
    "url": "https://github.com/mbtools",
    "email": "marc@abapm.com"
  },
  "maintainers": [
    {
      "name": "Marc Bernard",
      "url": "https://github.com/mbtools",
      "email": "marc@abapm.com"
    }
  ],
}
```



# Init Package

 **apm** ▶ Init Package

Package \*

...

Name \*


Version \*

Description

Labels (comma-separated, allowed chars: "-\_ . a-zA-Z0-9")

...

☐ Private Package (will not become public)




 [Sponsor us](#)

 **apm**  
1.0.0-beta - Developer Version - Win - IE

js: OK



# Install Package

 **apm** ▶ Install Package

Package \*

\$emoji

...

Name \*

emoji

Version \*

1.0.0


☐ Install Only Dependencies


?

Install Package

Create Package

Back

 [Sponsor us](#)

 **apm**  
1.0.0-beta - Developer Version - Win - IE

js: OK




# Publish Package

 **apm** ▶ Publish Package

Package \*


Name

Version



Publish Package

Back

 [Sponsor us](#)

 **apm**

1.0.0-beta - Developer Version - Win  
- IE

js: OK



Give it a try!

<https://abapgit.org/>





# Call to Action

Sign Up!

<https://abappm.com/>

# More from me...

ABAPConf 2021:

abapGit for Beginners [recording]

ABAPConf 2022:

4 abapGit Use Cases That Will Blow Your Mind [recording]

ABAPConf 2024:

Addressing the Future of ABAP:

The Power of Open Source [recording]

SAP “The Open-Source Way” Podcast: abapGit



# Thank You!

## Marc Bernard

Founder and CEO of apm.to Inc.

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<https://github.com/marcfbe>

<https://linkedin.com/in/marcfbe>







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THE FUTURE IS IN OUR HANDS

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MEDIA ▾

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RESOURCES

**DONATE**



# THE FUTURE IS IN OUR HANDS

## Vision

A world where young people have opportunities to create sustainable livelihoods.

## Mission

We use cutting-edge educational approaches to create pathways for young people from under-resourced communities to pull themselves and each other into sustainable livelihoods.

<https://ikamvayouth.org/>

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