



4 abapGit Use Cases That Will Blow Your Mind

(and gCTS won't help a bit)



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Marc Bernard Tools
Essential for SAP® Customers & Partners

Public

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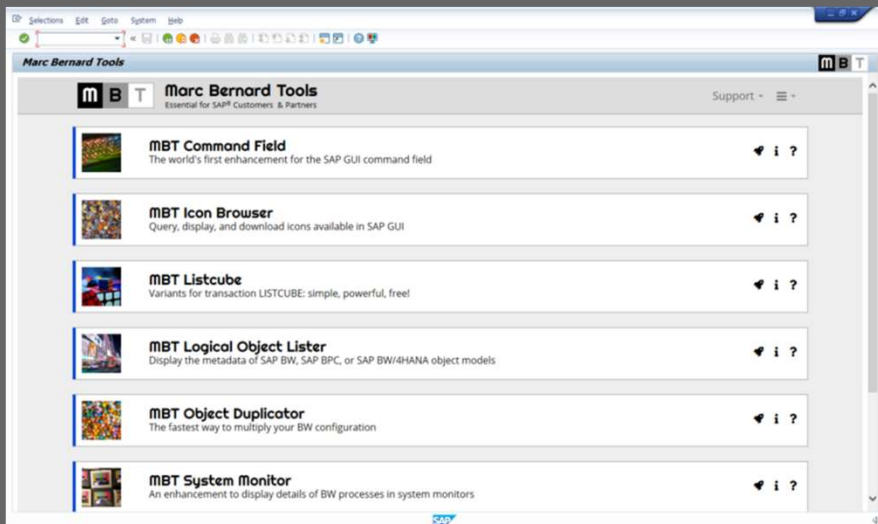
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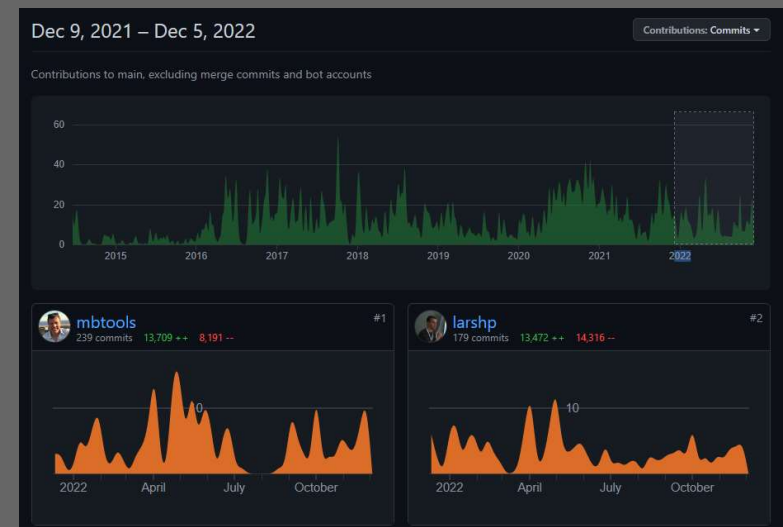
Marc Bernard



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



Bootstrapping  Marc Bernard Tools 



Top Contributor to  **abapGit**

For the Record

This is not a feature comparison
between abapGit and SAP gCTS

gCTS is in active development

Some things mentioned here might be possible with gCTS
already or will be possible in a future release

Disclaimer

All characters and events depicted in this talk are entirely fictitious.

Any similarity to actual events or persons, living or dead, is purely coincidental.



Code on the Fly, Literally

How abapGit saves the day
when there's no access to the internet

Scenario

- You are a developer of a new solution
- A customer calls and wants to sign a big contract for it
- But one more feature is required... by tomorrow
- You're in North America and the customer in Europe
- There's no internet on the plane
- The customer SAP system is not connected to the web

Challenge


Can you get the job done?

Code the changes,
bring them to the customer,
and merge them into their dev system
and meet the deadline?


What You Need




- Laptop with ABAP docker image
- abapGit with an “offline repository”
- USB stick
- ... and an overnight flight to Europe

Demo: abapGit offline repositories


 Remote Settings

Repository Local Remote Background Stats

ABAP Chat <https://github.com/mbtools/elitechat> 

  mbtools/abapgit_format  \$CHAT





General


Type of Repository: 

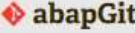
Online repository

Repository Name

ABAP Chat

 Sponsor us


1.119.0 - Developer Version

js: OK

Demo: abapGit offline repositories

- Implement the required feature during the flight
- When done use abapGit to export the project to ZIP file
- At customer, if necessary, install abapGit
- Import you ZIP file
- View and check diffs
(customer might have changed things)
- Merge changes



Sharing is Caring

How you can share code among colleagues or contribute to the ABAP open-source community

Scenario

- You have developed a diff3 library in your ERP dev system
- Your colleague in CRM has the same requirements
- The systems are on different releases and not connected by any transport route
- If you make changes, your colleague needs them too
- Company policy prohibits using external git servers

Challenge


Can you get the job done?

Find a way to share your development objects,
and automate the synchronization process?




What You Need

- abapGit installed on ERP and CRM dev systems
- Git server inside your firewall
(you can use an ABAP system for that: [abapGitServer](#))
- Background jobs to push or pull the repositories

Demo: abapGit background mode

 **abapGit** ▶ Background Mode

Repository Local Remote **Background** Stats

ABAP Diff3 <https://github.com/Marc-Bernard-Tools/ABAP-Diff3>   main  \$ABAP-DIFF3

Mode

Selection

Do Nothing Automatic pull **Automatic push, auto author** Automatic push, fixed author

Additional Settings


Not available

HTTP Authentication (Optional)

Username

Password

Password will be saved in clear text!

 **Save Settings** Run Background Logic Back

Demo: abapGit background mode

- Create a repository on your internal git server
- Push your diff3 library and future changes to the repo
- Provide repo read access to your colleague
- Pull library from repo into the CRM system
- Setup automatic background sync in the CRM abapGit

Intermezzo: abapGit sponsor us



Welcome

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

Documentation



GitHub



Latest build



Eclipse plugin



dotabap.org



Sponsor us



<https://abapgit.org>

Lead Maintainers

Lars Hvam ♥



@larshvam

Marc Bernard ♥



@marcbe

Christian Günter ♥



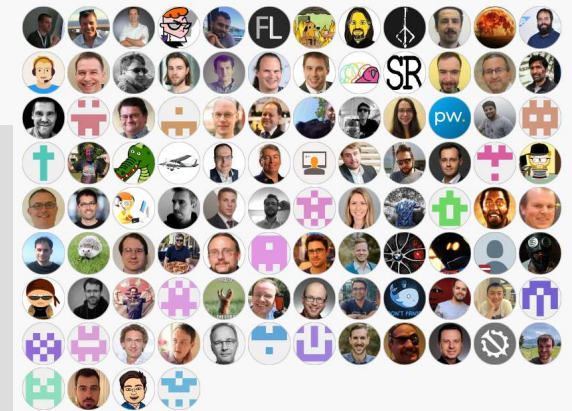
@chris_guenter

Alexander Tsybulsky ♥



Contributors

Thank you to over 150 contributors ♥! abapGit would not be possible without you. Click the image to see more details of over 5000 commits.





Travel Back in Time

How to protect your ABAP apps and restore any part of them to any point in time on any release

Scenario

- You need to reverse some changes to your code
(typical “it used to work before” case)
- But you don’t remember who made the change or why it was made

Challenge

Can you get the job done?





Find out who made the change,
when it was done, and by whom,
and restore only the relevant object?

What You Need


- Git blame and commit history
- abapGit with “selective pull”

Demo: abapGit blame and commit history

abapGit ▶ Remote Settings Repository Local **Remote** Background Stats

 **abapGit CI** <https://github.com/abapGit/CI>   (a429b8f...)  \$ABAPGIT-CI

General

Type of Repository: 

Online repository

Git Repository URL

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

Head

Type


Branch Tag **Commit** Pull Request

Branch *

main

Commit *

a429b8f9f53a9dd72db9c88163fb0cda90606fa3

 [Save Settings](#) [Switch to Offline](#) [Back](#)

Demo: abapGit blame and commit history

- Use git blame to identify who made the change and when
- Find the corresponding commit and copy the SHA1
- Change the remote settings of your repository to “Commit” and paste the SHA1 code
- View diffs and perform a selective pull



Feel the Fear and Do It Anyway

How you can change or even delete any code or config and stay cool as a cucumber

Scenario

- You are refactoring a lot of code
- The task will take several months
- It's not clear if the planned changes will work correctly
- Old code is turned into comments, just in case

Challenge

Can you get the job done?

Refactor the solution
without turning your code base
into a complete mess?

Bonus Scenario

- Your company needs to cut expenses and fires some employees
- In his last minutes, a malicious developer runs a program deleting dozens of packages in your dev system
- Last backup is a week old, and many things were not even transported

Challenge


Can you get the job done?




Are you able to restore all developments
to their most recent state?

What You Need


- abapGit
- Backup of all development to git repositories
- Regular commits





















Demo: abapGit delete & restore

 **abapGit** ▶ Repository Repository List ?

 **abapGit CI** <https://github.com/abapGit/CI>   4bdd49f ★ main \$ABAPGIT-CI

✓ abaplint: 0 issues found, 62 objects analyzed, abaplint 2.94.1 [Readme](#)

 Stage Patch Diff Branch Tag Advanced View Refresh Settings

Type ▾	Name	Changed by	Status
<i>non-code and meta files</i>			
	<code>/.abapgit.xml</code>		
 CLAS	ZCL_ABAPGIT_CI_CONTROLLER		diff (2) 
 CLAS	ZCL_ABAPGIT_CI_ALV_VIEW		
 CLAS	ZCL_ABAPGIT_CI_DISTRIBUTOR		
 CLAS	ZCL_ABAPGIT_CI_GENERIC_TESTS		
 CLAS	ZCL_ABAPGIT_CI_GITHUB_CONN		
 CLAS	ZCL_ABAPGIT_CI_HTML		
 CLAS	ZCL_ABAPGIT_CI_JOB_SCHEDULER		
 CLAS	ZCL_ABAPGIT_CI_LATEST_BUILD		
 CLAS	ZCL_ABAPGIT_CI_LOG		
 CLAS	ZCL_ABAPGIT_CI_REPO		
 CLAS	ZCL_ABAPGIT_CI_REPO_CATEGORY		
 CLAS	ZCL_ABAPGIT_CI_REPO_CHECK		
 CLAS	ZCL_ABAPGIT_CI_REPOS		
 CLAS	ZCL_ABAPGIT_CI_RESOURCE		
 CLAS	ZCL_ABAPGIT_CI_REST		
 CLAS	ZCL_ABAPGIT_CI_RUN_ABAPGIT_UT		
 CLAS	ZCL_ABAPGIT_CI_SKIP		
 CLAS	ZCL_ABAPGIT_CI_SLACK		
 CLAS	ZCL_ABAPGIT_CI_TEST_REPOS		

Thank You!

Contact Information

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<https://github.com/mbtools>



Resources

- <https://abapgit.org/>
- <https://docs.abapgit.org/>
- <https://github.com/AntonSikidin/elitechat>
- <https://github.com/Marc-Bernard-Tools/ABAP-Diff3>
- <https://github.com/abapGit/CI>

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