ABAP – Using git for safety and transparency

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ABAP Development

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abapGit has been around for a while now, one of its newer features is background mode, where it automatically pushes changed objects to the remote git repository.

Not all organizations have a git server in-house, and sometimes it might be difficult to get permission to put all the ABAP code into the cloud. So the abapGitServer project was started, it is a git server which can be installed on the ABAP application server, it is open source and MIT licensed.

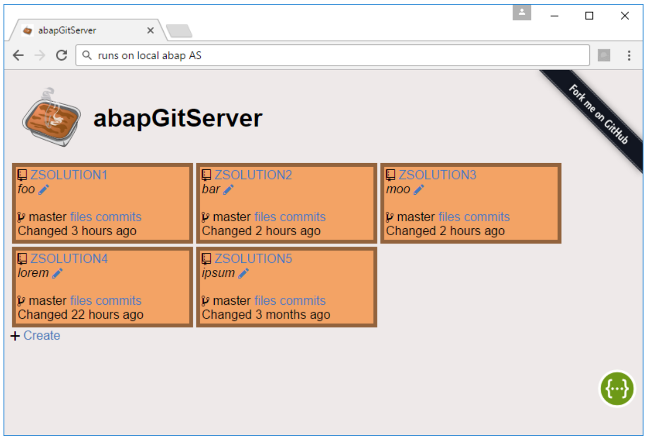
If you want to try out git in connection with ABAP, abapGitServer uses the existing SAP infrastructure and does not require any licenses, plus it does not require the ABAP system to be connected to the internet. User administration is also easy, as abapGitServer can be installed on the ABAP development system, so all developers will automatically have access.

If you have something like Github Enterprise, Gitlab CE or similar in your landscape this can be used instead of abapGitServer. However, something has to be setup regarding authentication, authentication with abapGit and abapGitServer is easy as it uses logon tickets.

Follow this guide to setup automatic push from abapGit to abapGitServer.

Quick overview

abapGitServer can be started via transaction ZABAPGITSERVER. And is organized in repositories, e.g. one repository for each project.



abapGitServer

ZSOLUTION1
foo
master files commits
Changed 3 hours ago

ZSOLUTION2
bar
master files commits
Changed 2 hours ago

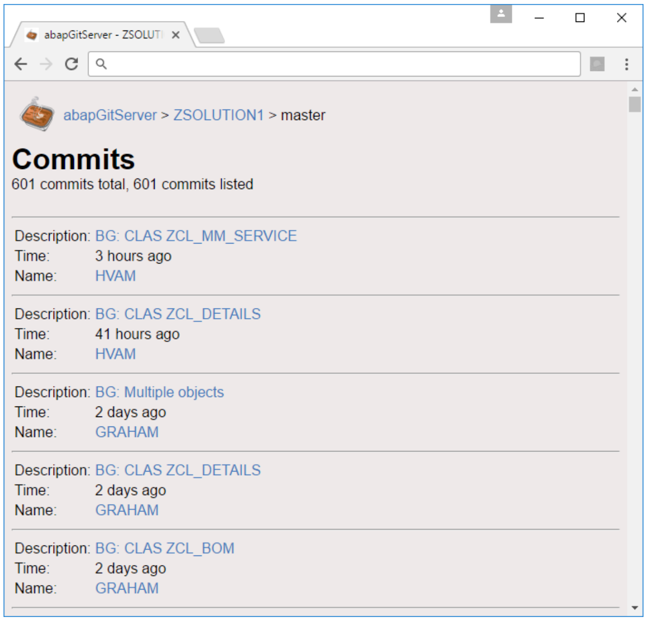
ZSOLUTION3
moo
master files commits
Changed 2 hours ago

ZSOLUTION4
lorem
master files commits
Changed 22 hours ago

ZSOLUTION5
ipsum
master files commits
Changed 3 months ago

+ Create

Commits can be listed for each repository,



abapGitServer > ZSOLUTION1 > master

Commits

601 commits total, 601 commits listed

Description: BG: CLAS ZCL_MM_SERVICE
Time: 3 hours ago
Name: HVAM

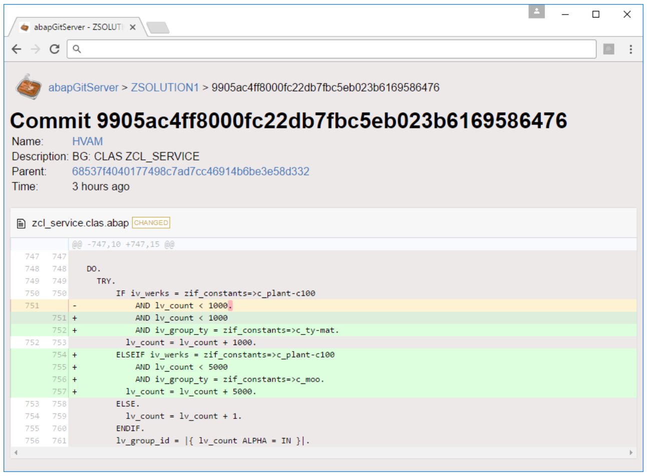
Description: BG: CLAS ZCL_DETAILS
Time: 41 hours ago
Name: HVAM

Description: BG: Multiple objects
Time: 2 days ago
Name: GRAHAM

Description: BG: CLAS ZCL_DETAILS
Time: 2 days ago
Name: GRAHAM

Description: BG: CLAS ZCL_BOM
Time: 2 days ago
Name: GRAHAM

And show exactly what has been changed,



abapGitServer > ZSOLUTION1 > 9905ac4ff8000fc22db7fbc5eb023b6169586476

Commit 9905ac4ff8000fc22db7fbc5eb023b6169586476

Name: HVAM
Description: BG: CLAS ZCL_SERVICE
Parent: 68537f4040177498c7ad7cc46914b6be3e58d332
Time: 3 hours ago

zcl_service.clas.abap CHANGED

```
@@ -747,10 +747,15 @@

   DO.
     TRY.
         IF iv_werks = zif_constants=>c_plant-c100
-            AND lv_count < 1000.
+            AND lv_count < 1000
+            AND iv_group_ty = zif_constants=>c_ty-mat.
           lv_count = lv_count + 1000.
+        ELSEIF iv_werks = zif_constants=>c_plant-c100
+            AND lv_count < 5000
+            AND iv_group_ty = zif_constants=>c_moo.
+          lv_count = lv_count + 5000.
         ELSE.
           lv_count = lv_count + 1.
         ENDIF.
         lv_group_id = |{ lv_count ALPHA = IN }|.
```

Benefits

Automatic Backup

With abapGit running in the background, all objects are automatically backed up regularly, e.g. every hour. SAP automatically creates a version when the transport is released, however with abapGit all details will be kept in history down to the hour. This is useful if code are deleted by accident, or doing too much heavy refactoring and forgetting to generate a version :o)

Full chronological history

It gives a complete overview of what has been changed across object types. If something suddenly breaks somewhere, it is possible to check the history for what has recently been changed, to see if this might have caused the error.

Versioning for non-versioned objects

abapGit works with message classes and smartforms, which are not versioned in standard SAP. With automatic backup, the non-versioned object types are versioned in git, and it is possible to see what/who has been changed.

Non-disruptive developer workflow

abapGit runs as a background job, and automatically tries to determine which developer changed the object. So there are no changes to the developer workflow, developers keep working as normal. The git backup just runs automatically and adds insights into your ABAP development.

Outro

Anyhow, try it out, its free and open source, just requires a developer key and a ABAP 7.03+ system.

Download from https://github.com/larshp/abapGitServer
Issues and pull requests welcome on the github page.

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