



CG WM Developer Guide

Version 1.18-SNAPSHOT

2018-08-17

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Table 1. History

| Date | Author | Detail Unresolved directive in subdocs/_init.adoc - include::D:\workspaceJava\cg-wm\target/generated-docs/history/developer-guide.adoc.psv[] |
|------|--------|--|
|------|--------|--|

Table 2. References

| Réf. | Ver. | Date | Document | Description |
|------|-----------------------|------------|------------------------------|---|
| [01] | 1.18-SNA PSH OT | 2018-08-17 | ci-pf-configuration.pdf | Configuration guide for the whole CI/CD platform |
| [02] | 1.18-SNA PSH OT | 2018-08-17 | cgutils-utility-methods.pdf | CgUtils utility methods |
| [04] | 1.18-SNA PSH OT | 2018-08-17 | cgutils-ano-handling.pdf | CgUtils ano handling |
| [05] | 1.18-SNA PSH OT | 2018-08-17 | cgmsgtracker-user-manual.pdf | CgMsgTracker, UM/Broker documents tracker |
| [06] | 1.18-SNA PSH OT | 2018-08-17 | cgelastic-user-manual | CgElastic, Elastic Stack custom webMethods module |

1. Introduction



The purpose of this document is to guide you in the setup of the development environment for CG webMethods (CG-WM) project.

CG-WM gather is mainly composed of 3 projects :

- **cg-utils** (java 8)
 - utility java methods for any webMethods project (see [02])
 - includes asynchronous ano handling (see [03])
- **cg-msg-tracker** (java 8)
 - Swing application for monitoring Broker / Universal Messaging publish/subscribe documents
- **cg-elastic** (java 8)
 - Elastic Stack custom webMethods module for continuous monitoring

Developements on this project are heavily relying on the production line <https://cric.pl.s2-eu.nvx.com/> to implement Continuous Integration / Continuous Deployment / Continuous Performance Testing / Continuous Monitoring.

These projects are maintained in an Open Source mode within nvx. This can be voluntary to increase personnel knowledge, overall projects quality, or this can be part of a future or actual client need.

How you think Open Source apps are maintained



How Open Source apps are really maintained



CommitStrip.com

2. Touring the interfaces

2.1. FusionForge

https://cric.pl.s2-eu.nvx.com/fusionforge/tracker/?atid=101&func=browse&group_id=6

Everything starts in FusionForge where tasks and tickets are put in decreasing order of need. But anyone can work on anything.

HomeMy PageProjectsSite AdminReportingCG WM Tools

SummaryAdminActivityTrackerDocsNewsFiles

TASKS

View TrackersTASKSEXPORT CSVSubmit NewReportingMonitorAdministrationAdd widgetsCustomize Layout

Displaying results 1-52 out of 52 total. Displaying 100 results. [Change](#)

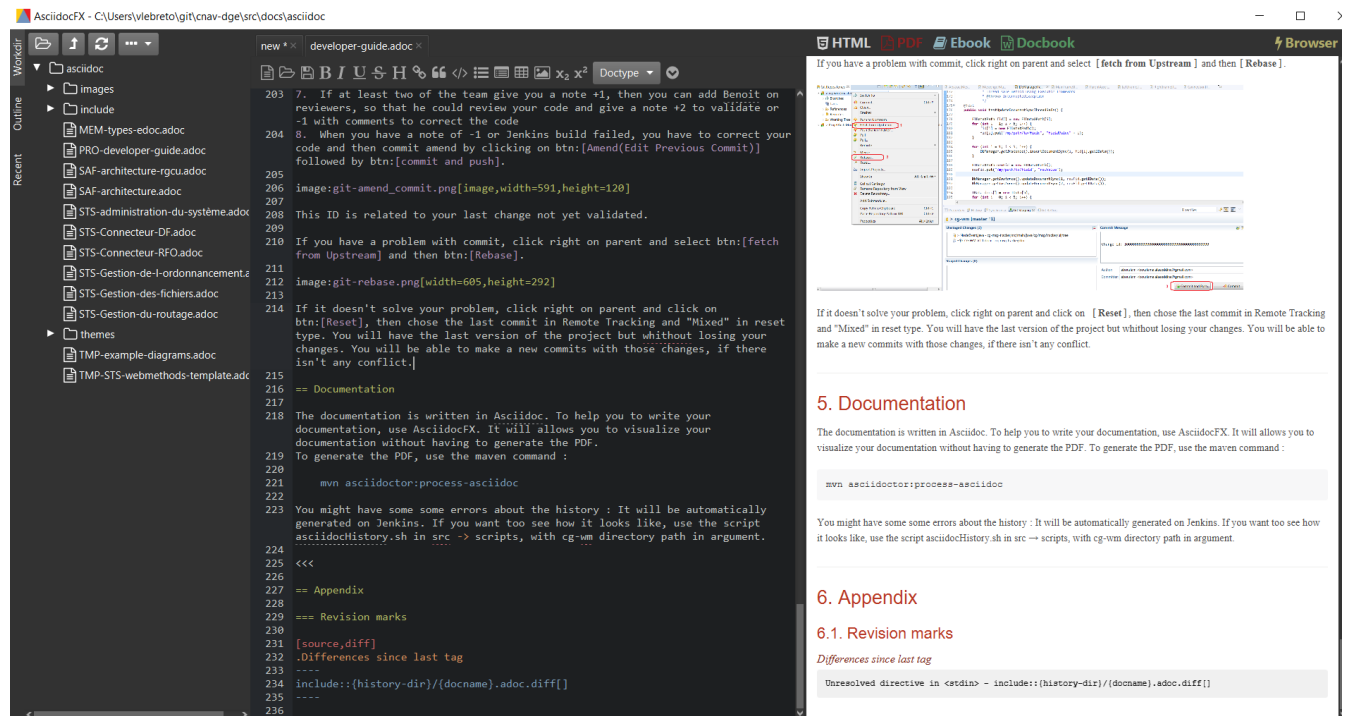
Advanced queriesSimple Filtering and Sorting

Open Build Query

| Id | Module | Summary | Assigned to | Submitted by | Priority |
|-----|----------------|---|----------------|----------------|----------|
| 147 | cg-msg-tracker | Bug to fix - search without name - republish on search - saving configuration | Nobody | Thomas BONNIN | 5 |
| 149 | cg-utils | CgUtils anomaly STATUSDATE null | Nobody | Benoit COUETIL | 5 |
| 135 | cg-msg-tracker | Export mensuel de ce backlog | Nobody | Benoit COUETIL | 5 |
| 143 | cg-msg-tracker | Save directory used when imported/exported connection and document | Nobody | Thomas BONNIN | 5 |
| 142 | cg-elastic | Install Mediator and plug it to Elasticsearch | Nobody | Benoit COUETIL | 5 |
| 84 | cg-msg-tracker | Popup on startup error | Nobody | Benoit COUETIL | 5 |
| 141 | cg-msg-tracker | Update developer guide for german colleagues | Benoit COUETIL | Benoit COUETIL | 5 |
| 96 | cg-elastic | Kibana on CgElastic homepage | Nobody | Benoit COUETIL | 4 |
| 140 | all | Change Capgemini logo in documentations | Nobody | Benoit COUETIL | 4 |
| 153 | cg-elastic | Nb of files + Nb of DB entries | Nobody | Benoit COUETIL | 4 |
| 132 | cg-msg-tracker | BUG1 import xml code non développé | Nobody | Benoit COUETIL | 4 |

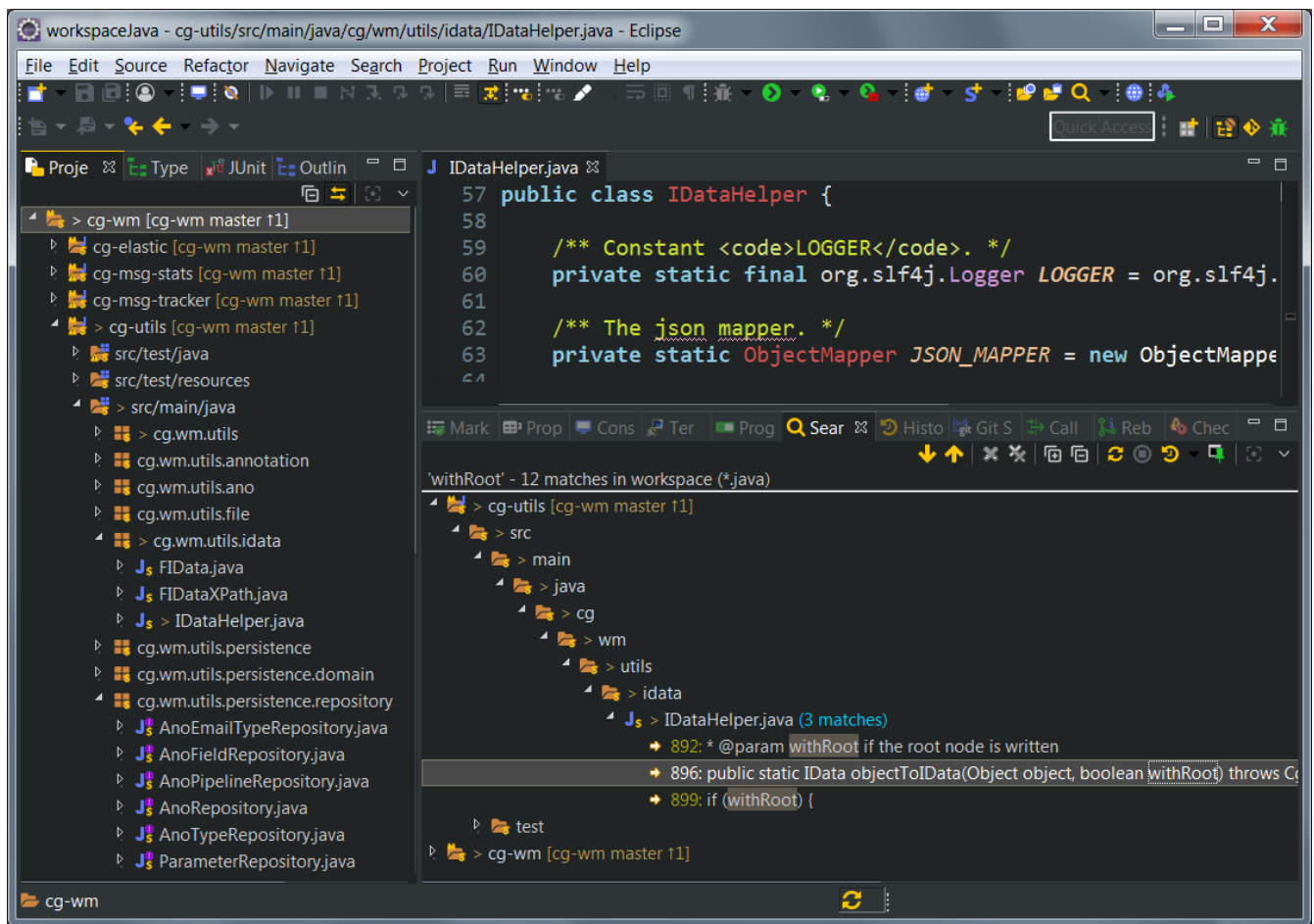
2.2. AsciiDocFX

All documentations on the project, including this one, are written as part of DevOps principle Documentation-As-Code using AsciiDocFX and compiled with Asciidoctor under maven to produce PDF.



2.3. Eclipse

Eclipse is the preferred tool for development.



2.4. Gerrit

<https://cric.pl.s2-eu.nvx.com/gerrit/#/q/status:open>

ALLMYPROJECTSPEOPLEPLUGINSDOCUMENTATION

OpenMergedAbandoned

Change 578 - Needs Code-Review Label

Changement du nom des méthodes receiveAbtEntreeTR et receiveAbtEntreebatch

+ implémentation receiveAbtEntreeTRCrud

Change-Id: Ic532c9e0165e5d4873b7fcca7d69621ef5fedef1

Author: viebreto <vivien.le-breton@capgemini.com> Nov 16, 2017 11:28 AM

Committer: viebreto <vivien.le-breton@capgemini.com> Nov 20, 2017 5:09 PM

Commit: 08e85a49e069b698638278d9591c110dba53557f1 (gitweb)

Parent(s): 5c5d89be4bcd6f713e3271f7c19f1e7da4bc07a (gitweb)

Change-Id: Ic532c9e0165e5d4873b7fcca7d69621ef5fedef1

Conflicts With (1)

Minor changes

Owner: Vivien LE BRETON

Reviewers: Arnaud GIFFARD x Cedric LELION x Jenkins BPM-FACTORY x Marine BOUDARD x Othmane EL AJAJE x Rachid ABALINE x

Project: cnav-dge

Branch: master

Topic:

Strategy: Rebase if Necessary

Updated: 17 minutes ago

Cherry PickRebaseAbandon

Code-Review: -1 Marine BOUDARD x

Verified: +1 Jenkins BPM-FACTORY x

Files

File PathCommentsSize

Commit Message

dge-b2b-abt/src/main/java/cnav/isic/dge/b2b/abt/Constants.java11

dge-b2b-abt/src/main/java/cnav/isic/dge/b2b/abt/Controller.java45

dge-b2b-abt/src/main/java/cnav/isic/dge/b2b/abt/Generator.java15

dge-b2b-abt/src/main/java/cnav/isic/dge/b2b/abt/Receiver.java371

dge-b2b-abt/src/test/java/cnav/isic/dge/b2b/abt/ControllerTest.java20

dge-b2b-abt/src/test/java/cnav/isic/dge/b2b/abt/ReceiverTest.java49

dge-b2b-abt/src/test/resources/File/ABT_ENTREE_OK.xml46

dge-b2b-abt/src/test/resources/File/ABT_ENTREE_OK_2.xml43

dge-b2b-abt/src/test/resources/File/ABT_ENTREE_echange_empty_all.xml44

dge-b2b-abt/src/test/resources/File/ABT_ENTREE_echange_nbdocs_not_same.xml44

dge-b2b-abt/src/test/resources/File/ABT_ENTREE_echange_null_all.xml44

src/docs/asciidoc/STS-connecteur-abo.adoc10

src/test/shared-resources/config/packages/DgeCommons/errorLabel.properties4

src/test/shared-resources/create-schema.sql3

+407, -342

History

Expand All

Vivien LE BRETON Uploaded patch set 1. Nov 16 11:28 AM

Jenkins BPM-FACTORY Patch Set 1: Verified-1 Build Failed (jd_d) https://bpmfactory.s2-eu.capgemini.com/jenkins/job/CNAV-DGE_P1_Review/1168/: ABORTED Nov 16 11:31 AM

Vivien LE BRETON Uploaded patch set 2: Patch Set 1 was rebased. Nov 16 11:34 AM

Jenkins BPM-FACTORY Patch Set 2: Verified-1 Build Failed (jd_d) https://bpmfactory.s2-eu.capgemini.com/jenkins/job/CNAV-DGE_P1_Review/1169/: FAILURE Nov 16 11:46 AM

Vivien LE BRETON Uploaded patch set 3. Nov 17 2:27 PM

Vivien LE BRETON Uploaded patch set 4. Nov 17 2:32 PM

Jenkins BPM-FACTORY Patch Set 3: Verified-1 Build Failed (jd_d) https://bpmfactory.s2-eu.capgemini.com/jenkins/job/CNAV-DGE_P1_Review/1175/: ABORTED Nov 17 2:33 PM

Collaborative Code Review is applied on the project inspired from open sources projects for better scalability, quality and developer localizations tackling.



2.5. Jenkins

<https://cric.pl.s2-eu.nvx.com/jenkins/>

Jenkins is used for both review and merge modes to automate build and deployment. As part of DevOps principle, Pipeline-As-Code are used. The Jenkins Blue sexy interface is deployed.

✓ DGE_P2_DeployToDev
396

Pipeline

Modifications

Tests

Artefacts

↺

⚙️

📄

Déconnexion

✕

Branche: —

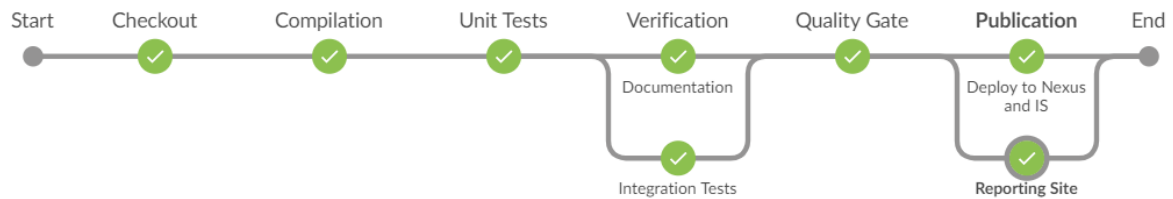
🕒 20m 22s

Modifications par benoit.couetil

Commit: —

🕒 3 hours ago

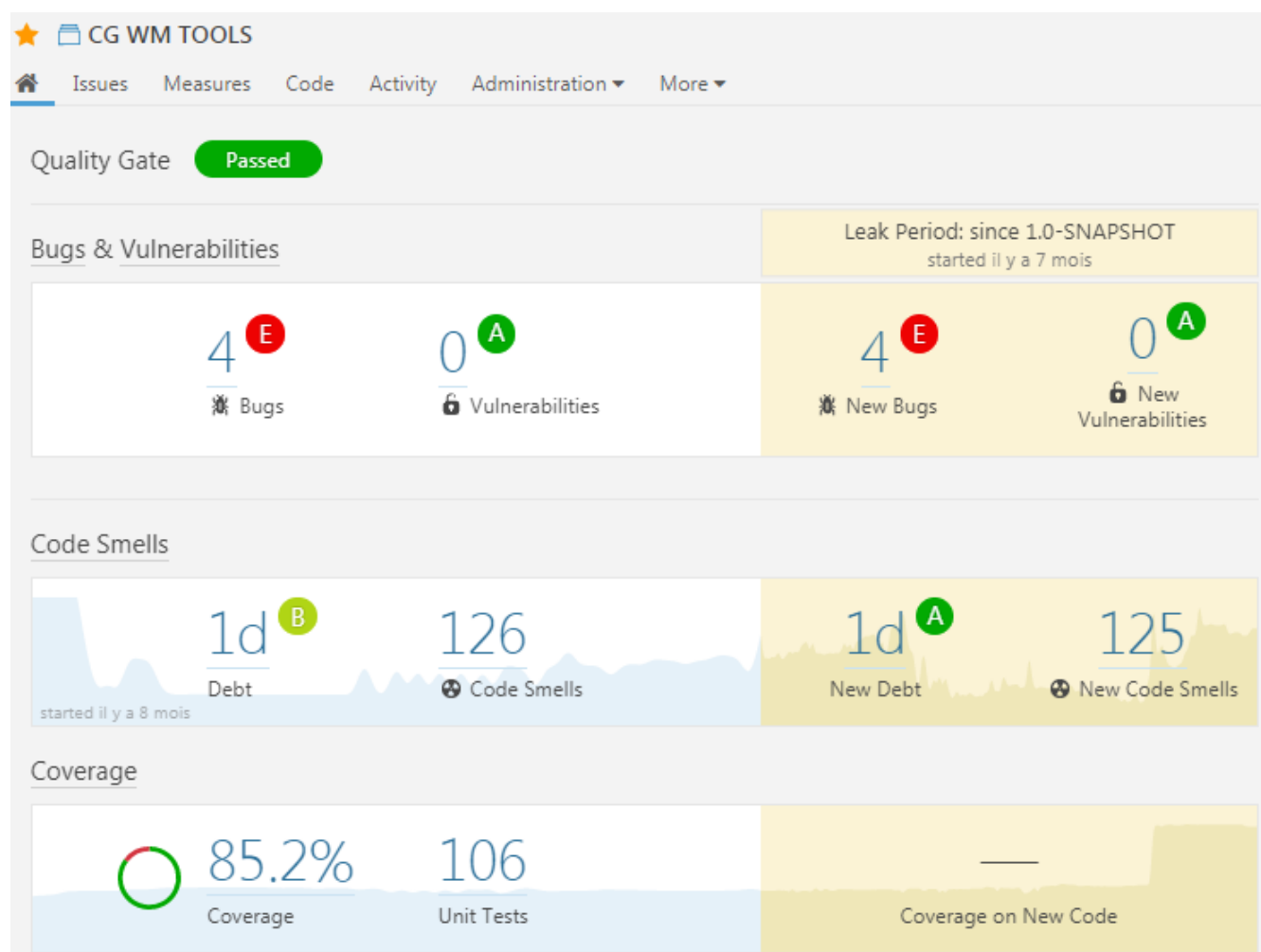
Lancé par un changement dans la base de code



2.6. SonarQube

<https://cric.pl.s2-eu.nvx.com/sonarqube/>

SonarQube helps maintain a continuous high quality with gateways used on each Jenkins pipeline.



2.7. Nexus

<https://cric.pl.s2-eu.nvx.com/nexus/>

Nexus stores binary produced on the project, SNAPSHOTS and RELEASES.

The screenshot displays the Nexus Repository Manager OSS web interface. The left sidebar contains navigation links for Sonatype™, Artifact Search, Views/Repositories, Security, Administration, and Help. The main content area is titled 'Repositories' and shows a table of configured repositories. Below the table, the 'Snapshots' section is active, displaying a tree view of the snapshot storage structure.

| Repository | Type | Health Check | Format | Policy | Repository Status |
|--------------------|---------|----------------|--------|----------|-------------------|
| Central | proxy | ANALYZE | maven2 | Release | In Service |
| Central M1 shadow | virtual | ANALYZE | maven1 | Release | In Service |
| Releases | hosted | ANALYZE | maven2 | Release | In Service |
| Sites | hosted | ANALYZE | maven2 | Release | In Service |
| Snapshots | hosted | ANALYZE | maven2 | Snapshot | In Service |
| Sonatype Snapshots | proxy | ANALYZE | maven2 | Snapshot | In Service |
| Wakaleo | proxy | 0 0 | maven2 | Release | In Service |

Snapshots

Browse Index | **Browse Storage** | Configuration | Routing | Summary

Refresh Path Lookup: []

- Snapshots
 - cg
 - wm
 - cg-elastic
 - cg-msg-stats
 - cg-msg-tracker
 - cg-utils
 - cg-wm

2.8. Integration Server

<http://frpardge.corp.nvx.com:5555/>

A basic webMethods 9.12 ecosystem, including Integration Server, Oracle XE Database, CentraSite, Mediator, Universal Messaging, is accessible for development and tests. Assets are automatically deployed on merges by Jenkins.

WEBMETHODS Integration Server default :: frpardge.corp.capgemini.com :: Administrator

▼ **Server**

Scheduler

Service Usage

Statistics

► **Logs**

► **Packages**

► **Solutions**

► **Adapters**

► **webMethods Cloud**

► **Security**

► **Settings**

Server > Statistics

Usage

| | Current | Peak | Limit |
|-------------------|---------------------|------|------------|
| Total Sessions | 84 | 287 | - |
| Licensed Sessions | 0 | 1 | 2147483647 |
| Stateful Sessions | 0 | 1 | 2147483647 |
| Service Instances | 0 | 37 | - |
| Service Threads | 0 | 29 | - |
| System Threads | 478 | 483 | - |
| Uptime | 10h:31m:25s | | |

Memory

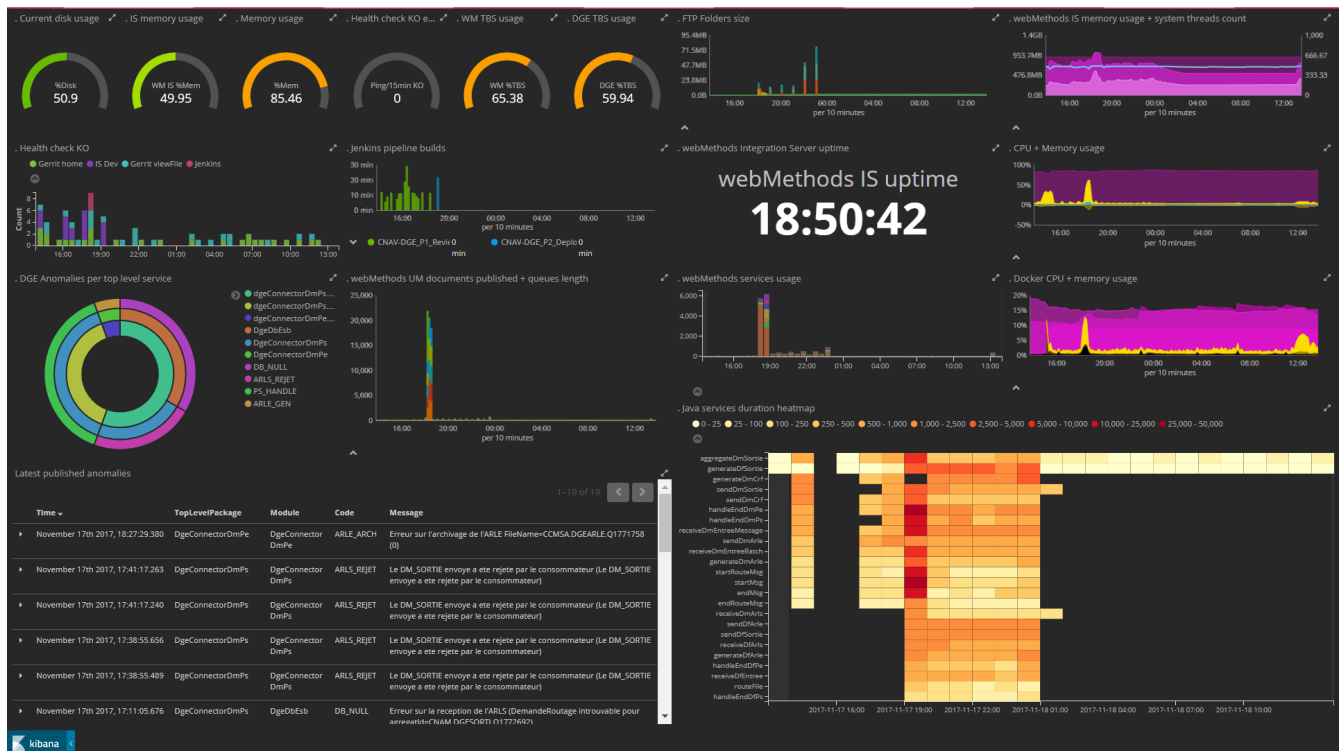
| | | | |
|-----------|-----------|--------------|-------------|
| Maximum | 932352 KB | | |
| Committed | 792064 KB | | |
| Used | 507128 KB | 65% (memory) | <div></div> |
| Free | 284936 KB | 35% | <div></div> |

Memory Usage (average per hour)

2.9. Elastic Stack

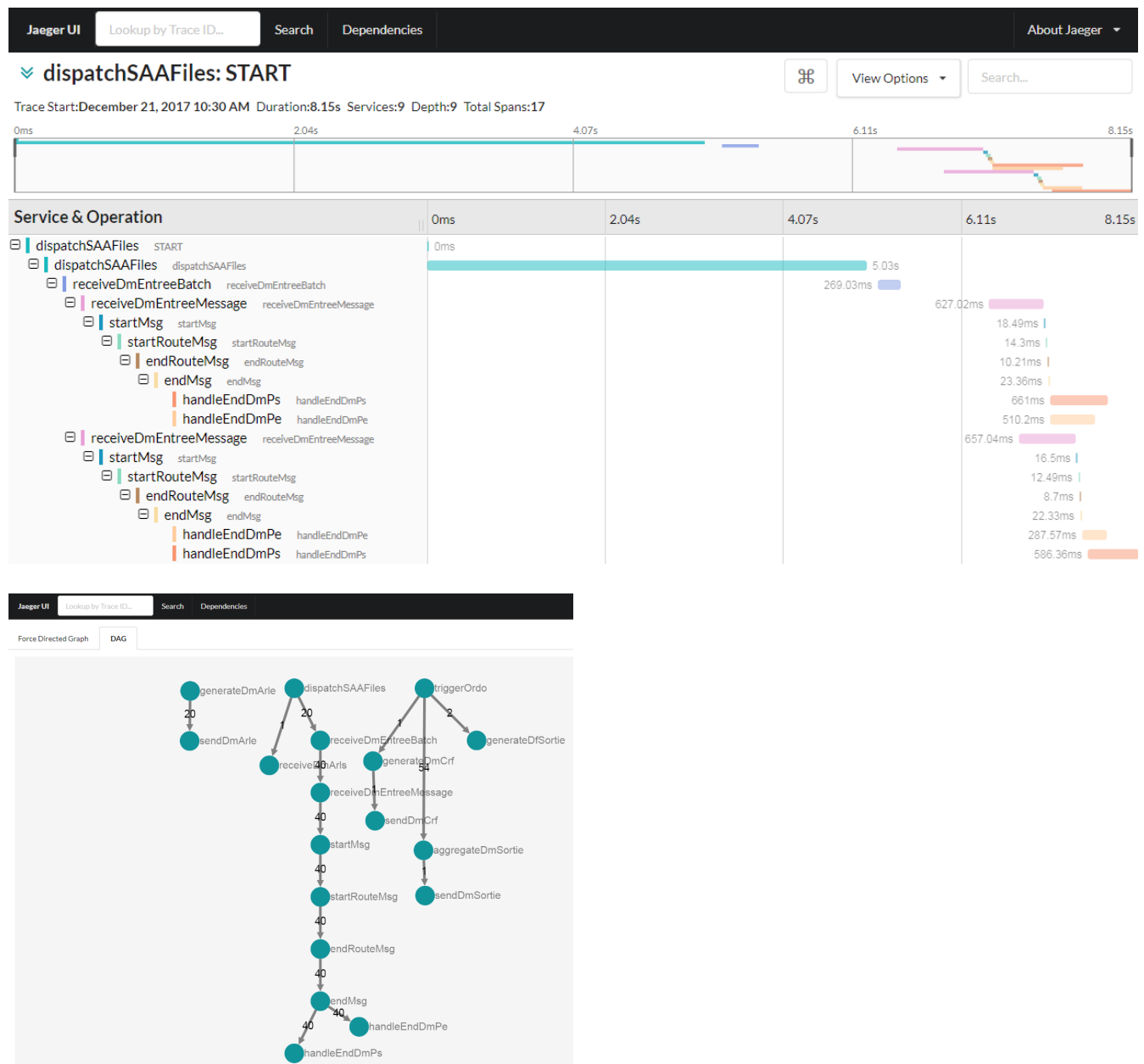
<http://frpardge:5601/app/kibana#/dashboard/44bbf690-ab4d-11e7-80b8-ef10d01e4f2a>

The Elastic Stack is used for Continuous Monitoring.



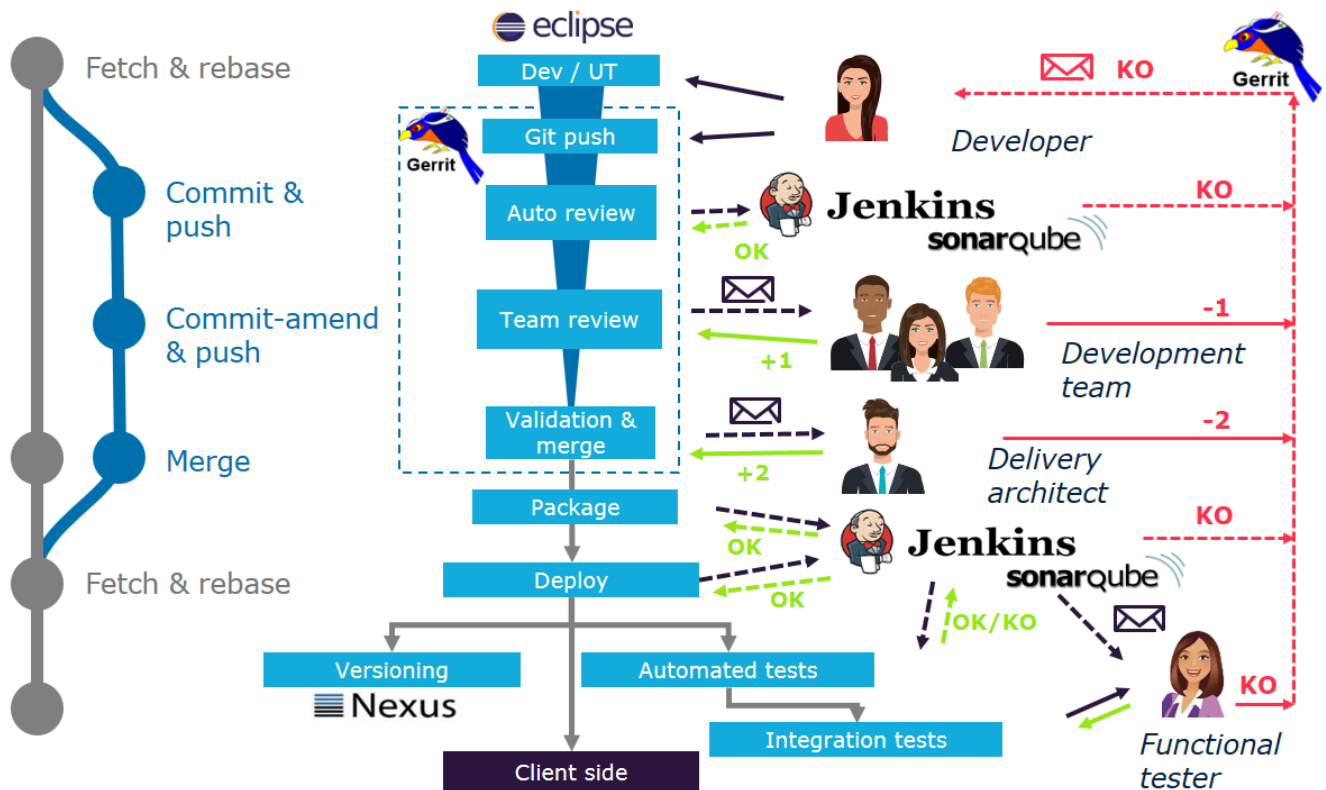
2.10. Jaeger tracing

<http://frpardge.corp.nvx.com:16686/>



CgUtils implements open-tracing, and send them to a Jaeger server. This allows a fine grained follow up on the business process level, a field where the Elastic Stack cannot go for now.


3. Code review golden rules (using Gerrit)



These are rules to be followed for a smooth overall development process :

1. The team has to know that you are taking responsibility of the current development task.
2. If not sure of what to achieve, confirm with task responsible
3. Target a complete realization in delays estimated by team leader. Alert on time shortage.
4. Update documentation along with code whenever it's needed.
5. Do not group functionalities in commit, to avoid long run reviews.
 - a. It is possible to handle multiple review in parallel.
6. Commit text has to be explicit, complete, and synthetic.
 - a. Commit text must be one line for the sake of history and documentation readability (replace ':' with '()' and '-' with '+'). No limit to the length of the line.
 - b. If the commit include documentation, set a first line commit text suitable for documentation. Put other information on other lines (they won't appear in documentation history)
7. Commit often, at least on tuesdays and thursdays (even on unfinished current task).
8. No "related changes" should appear on the change in Gerrit, or you did not handle multiple review properly.
9. Fixing Jenkins failures is always a top priority.
10. On "Cannot merge" Gerrit message, you have to pull/commit/push to rebase properly
11. When Jenkins give a +1, add the **reviewers** list as reviewers, this should add all reviewing people.

12. When added as a reviewer, try to give a review in the next half day, knowing that it blocks the process.
 - a. You don't have to be an expert to do a review. At least try to spot pieces of code not well explained and missing javadoc. Try to imagine yourself as a future bug fixer who needs clean code to work properly.
 - b. If suitable, test the application or check the auto IT tests.
 - c. If any, check that the generated documentation looks good in PDF.
 - d. Check that there is UT specifically testing the new/modified code.
13. When one or two +1 from the team have been given (depending on the size of the team), add the **validators** list of reviewers for a final +2 review followed by a submit to the master branch.

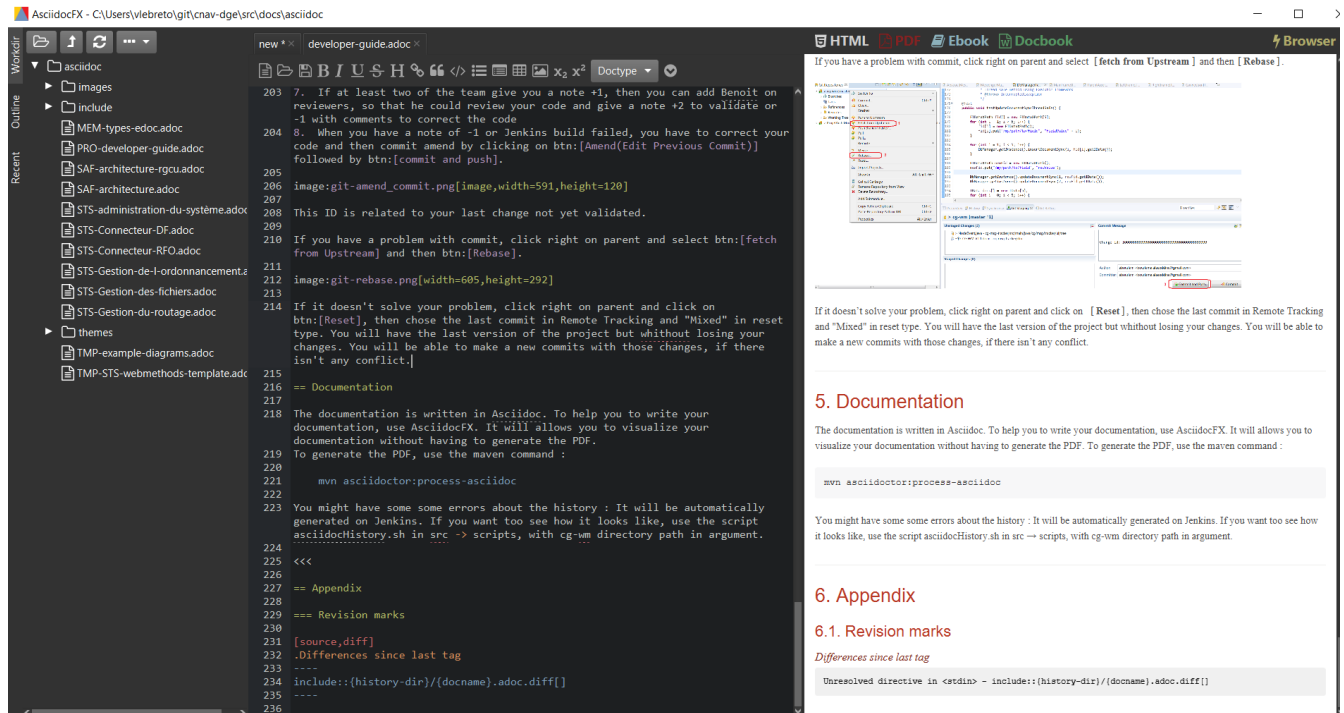


| | COMMENT | DATE |
|---|------------------------------------|--------------|
| ○ | CREATED MAIN LOOP & TIMING CONTROL | 14 HOURS AGO |
| ○ | ENABLED CONFIG FILE PARSING | 9 HOURS AGO |
| ○ | MISC BUGFIXES | 5 HOURS AGO |
| ○ | CODE ADDITIONS/EDITS | 4 HOURS AGO |
| ○ | MORE CODE | 4 HOURS AGO |
| ○ | HERE HAVE CODE | 4 HOURS AGO |
| ○ | AAAAAAA | 3 HOURS AGO |
| ○ | ADKFJSLKDFJSDKLFJ | 3 HOURS AGO |
| ○ | MY HANDS ARE TYPING WORDS | 2 HOURS AGO |
| ○ | HAAAAAAAANDS | 2 HOURS AGO |

AS A PROJECT DRAGS ON, MY GIT COMMIT
MESSAGES GET LESS AND LESS INFORMATIVE.

4. Documentation-as-code with AsciiDoc

The documentation is written in AsciiDoc. To help you to write your documentation, use AsciiDocFX. It will allow you to visualize your documentation without having to generate the PDF.



Download and install :

- AsciiDocFX, to create and edit your documents
- Graphviz, to add the extension for your AsciiDocFX installation

Rules to produce AsciiDoc files :

- file names are in kebab-case, except the type at the beginning
- use **kbd:[myShortcut]** for keyboard shortcuts
- use ***myButton*** for buttons
- High level title should be on new pages (use <<<)
- don't forget init/closure includes at beginning/end of the adoc
- For STS, use TMP-STs-webmethods-template.adoc as a template

To show a in progress diagram to colleagues, you can generate a link using this page : <http://www.plantuml.com/plantuml/uml/SyfFKj2rKt3CoKnELR1Io4ZDoSa70000>

To generate the PDF locally, use the maven command :

```
mvn asciidoctor:process-asciidoc
```

You might have some errors about the history : It will be automatically generated on Jenkins. If you want to see how it looks like, use the script `asciidocHistory.sh` in `src` → `scripts`, with `cg-wm` directory path in argument.

4.1. .doc to .adoc

If the initial documentation is of Microsoft Word, you have to first migrate it to AsciiDoc file.

Download and install pandoc.

To migrate a document, use it in command line

```
pandoc --from=docx --to=asciidoc --wrap=none --atx-headers --normalize --extract-media=images monDoc.docx > monDoc.adoc
```

5. Eclipse

5.1. Installation

- Install the latest Eclipse JEE. You can use your own, but no team support below Neon version.
- Install SonarLint plugin
 - in order to connect to its local SonarQube server and be warned of violations in Eclipse, in real time
- Install Enhanced Class Decompiler plugin
 - Enhanced Class Decompiler integrates JD, Jad, FernFlower, CFR, Procyon seamlessly with Eclipse and allows Java developers to debug class files without source code directly.
- Install Git if you don't already have it on your computer.

5.2. Configuration

Go to **Window** → **preferences**

5.2.1. Formatter

- Click on **formatter**
- Import this file

```
src/docs/CG.Eclipse.Preferences.Java.CodeStyle.Formatter.xml
```

5.2.2. Members Sort Order

- **Java** → **Appearance** → **Members Sort Order**
- Organize as follow
 - Static Fields
 - Fields
 - Types
 - Static Initializers
 - Initializers
 - Constructors
 - Static Methods
 - Methods

5.2.3. Save actions

- **Java** → **Editor** → **Save actions**
- Check as follow :
 - ☒ Perform the selected actions on save
 - ☒ Format source code
 - ☐ Format all lines
 - ☒ Format edited lines
 - ☒ Organize imports
 - ☒ Additional actions
 - Add missing @Override annotations
 - Add missing @Override annotations to implementations of interface methods
 - Add missing @Deprecated annotations
 - Remove unnecessary casts
 - Sort members excluding fields, enum constants, and initializers

- Remove redundant type arguments

5.2.4. Encoding

- Go to **Window** → **Preferences** → **General** → **Workspace**
- At the bottom, choose
 - Other : UTF-8
 - Other : Unix

5.2.5. Unnecessary Code Detector plugin

- Install Unnecessary Code Detector plugin to see unused declarations or wrongs declarations (public when it could be private for example), with this configuration :
 - Window > preferences > UCDetector
 - ActiveMode = MyMode
 - Ignore > [] Bean methods
 - Detect > File name pattern to search =

```
*.xml,MANIFEST.MF,*.tld,*.properties,*.jsp,*.jspx
```

5.2.6. JAutoDoc plugin

- Install JautoDoc plugin to be able to :
 - add Javadoc with right click → **Add Javadoc** on a class or a package
 - add Javadoc on a function by selecting its name and pressing **Ctrl+Alt+j**

5.2.7. AutoDeriv plugin

The target folder should always be marked as derived, not to appear in searches. Install the AutoDeriv plugin for this purpose, and configure it by creating the file below.



It can be placed in the project's root directory, then it would be shared to others through the source code repository, but this works only for the current projects, not submodules !

<WORKSPACE>/derived

```
# set the 'target' and 'ext' folders as derived
target
#ext

# but don't affect the 'keep' sub-folder
!target/generated-sources

# all files with a '.dep' extension are generated
#*.dep

# this specific file is also generated
#src/include/version.h
```

5.2.8. Commit timeout

- Navigate to **Team** → **Git**
- set **Remote connection timeout (seconds)** = 120

5.2.9. XML Line size

The Eclipse XML Formatter split lines, and this is an issue for wagon plugin in pom.xml.

- Navigate to **XML** → **Editor**
- Set **Line width** = 200

5.2.10. Disable stealing of focus by Console in Eclipse

There is one very annoying issue in Eclipse: stealing of focus by Console window.

Console window is displayed when you run application.

When you set focus to some other window like Search results and application prints something on output then Eclipse will automatically switch to Console window. Your search results are gone.

There is simple way how to get rid of such a behavior.

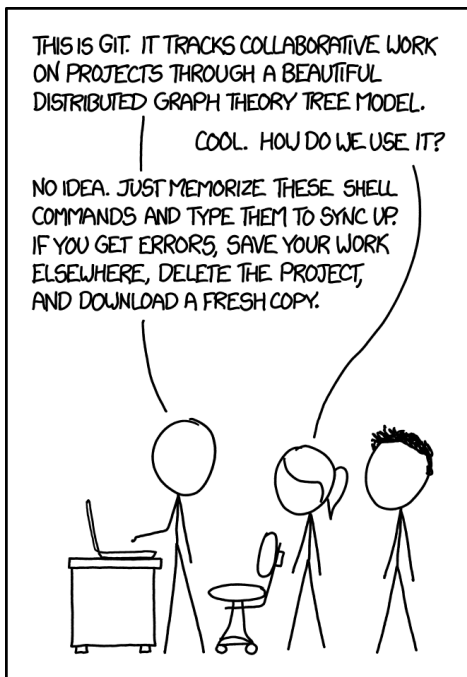
Go to Run/Debug → Console.

Uncheck options :

- ☐ Show when program writes to standard out
- ☐ Show when program writes to standard error

5.3. EGit with Gerrit

Git without Eclipse and Gerrit



To generate your password in Gerrit, right click on your username → **Settings** → **HTTP password** → **Generate Password**

On Eclipse

- Open **Git perspective**
- Click on **Clone a Git repository**
- Fill the required data :

The screenshot shows the 'Clone Git Repository' dialog box. Under 'Source Git Repository', the instruction 'Enter the location of the source repository.' is present. The 'Location' section has three fields: 'URI:' with the value 'https://bpmfactory.s2-eu.capgemini.com/gerrit/p/cg-', 'Host:' with 'bpmfactory.s2-eu.capgemini.com', and 'Repository path:' with '/gerrit/p/cg-wm.git'. The 'Connection' section has 'Protocol:' set to 'https' and an empty 'Port:' field. The 'Authentication' section has 'User:' set to 'helkaiss', a masked 'Password:' field, and a checked 'Store in Secure Store' checkbox. At the bottom, there are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'.

URL : <https://cric.pl.s2-eu.nvx.com/gerrit/p/cg-wm.git>

Protocol = https

User = your CORP user

Password generated from Gerrit

☒ Store in Secure Store



Enter your workspace in directory and then click on finish

After creating a new local Git repository, the Git repository of the project should have this structure:



To configure Git, go to **Window** → **Preferences** → **Team** → **Git** → **Configuration**, on **User setting** click on **Open** and enter the following configuration after updating it with your personal informations :

```
[gui]
recentrepo = F:\\git-repository\\cg-wm
[gerit]
createchangeid = true
[user]
name = login
email = nvx mail
[branch]
autosetuprebase = always
[credential]
helper = manager
[credential "https://cric.pl.s2-eu.nvx.com/gerit/p/cg-wm.git"]
[credential "https://cric.pl.s2-eu.nvx.com/gerit"]
```

The "autosetuprebase = always" will allow you to do a fetch and a rebase by simply click on "pull".

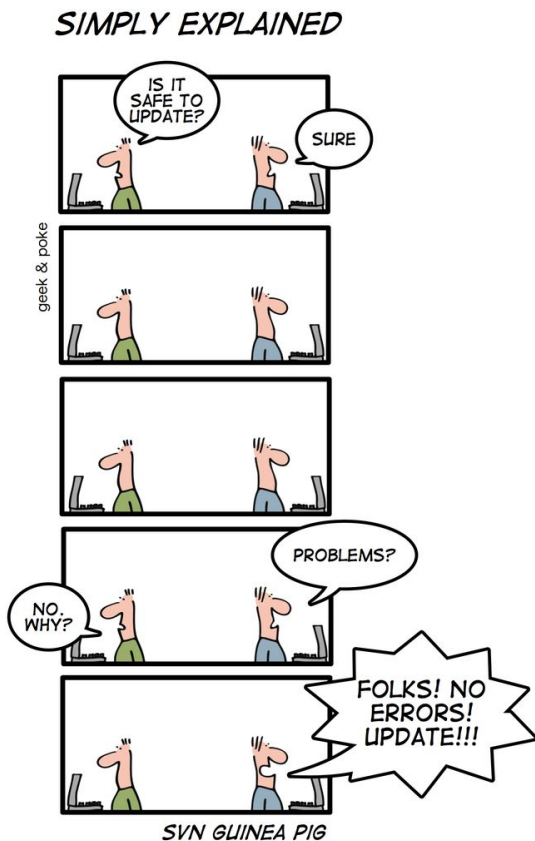
On **Repository Settings** click on **Open** and enter the following configuration :

```
[core]
repositoryformatversion = 0
filemode = false
logallrefupdates = true
[remote "origin"]
url = https://cric.pl.s2-eu.nvx.com/gerit/p/cg-wm.git
fetch = +refs/heads/*:refs/remotes/origin/*
push = HEAD:refs/for/master
[branch "master"]
merge = refs/heads/master
rebase = true
remote = origin
```

After this Git configuration, restart eclipse.

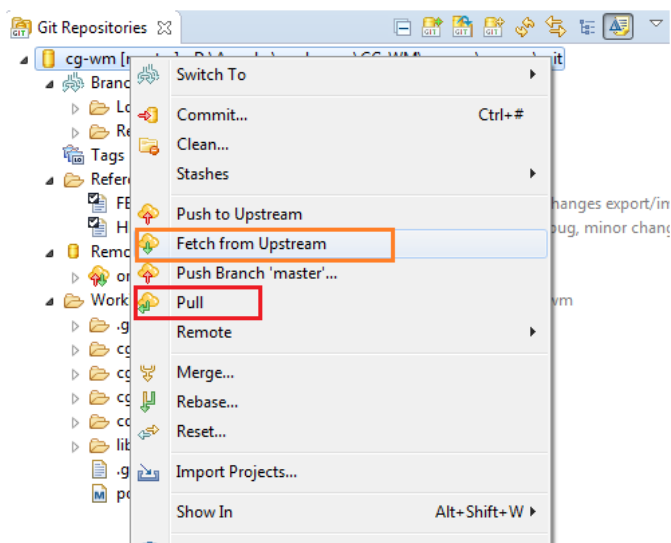
5.3.1. Checkout Git Repository

Life without the Production Line



To update Git repository click right on parent and select :

- "Pull" (If your git is configured to do a fetch and rebase on "Pull")
- or "Fetch from upstream", and then "Rebase"



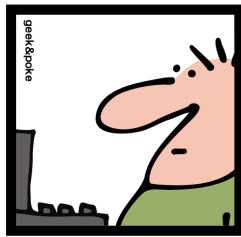
5.3.2. Commit / push

Life before Gerrit

Friday afternoon - Time for the Weekend



Push

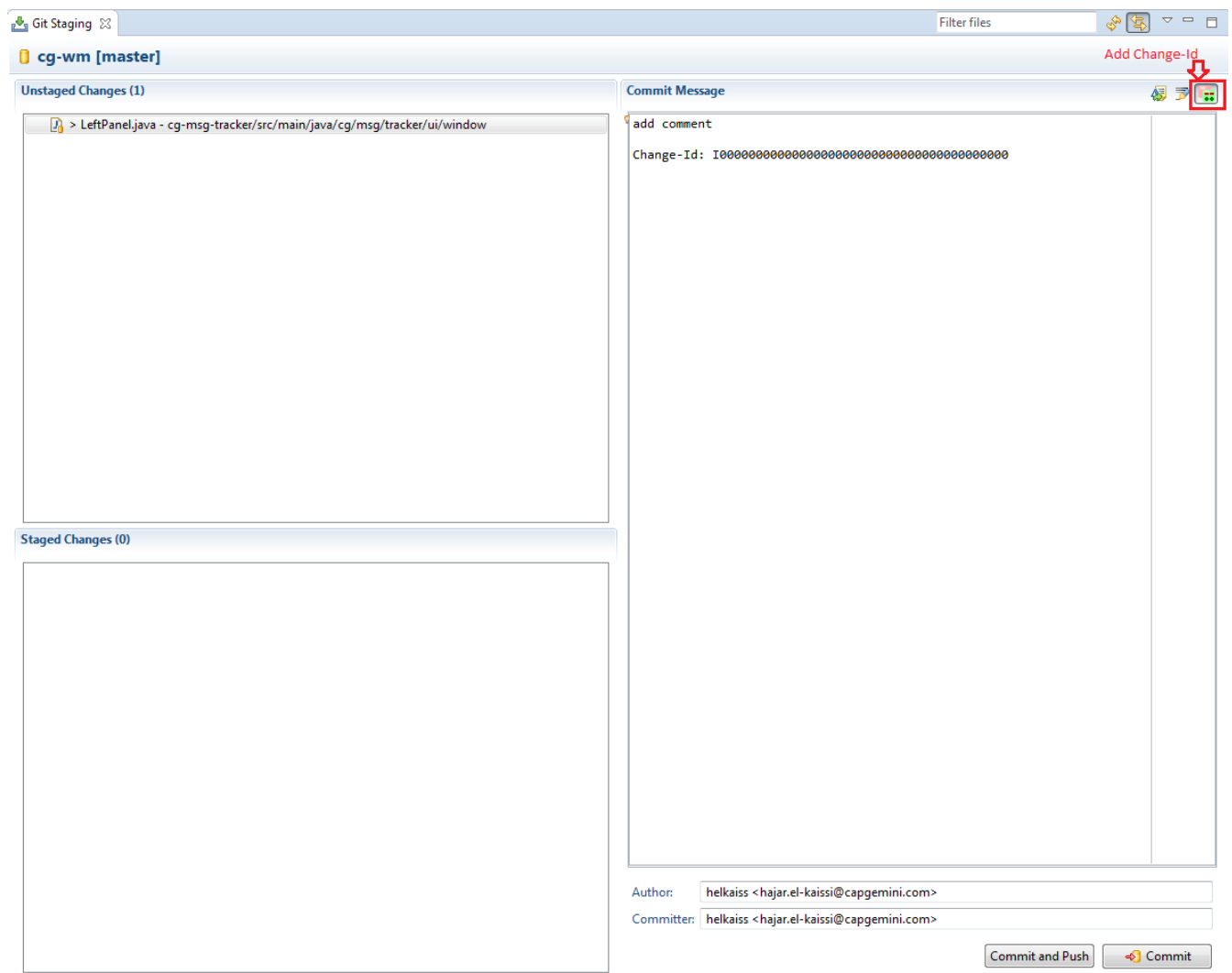


Wait



Welcome to the git hell

In order to commit a new change follow these steps:



- Show view **Git Staging** (or go to perspective Git and select "Git Staging" tab)
- Drag your file not committed from Unstaged Changes to Staged Changes
- On Commit message add your message and click on **Add Change-Id** to add an ID for your commit (you add a new change ID only when your previous is validated by the tech lead on Gerrit)
- Click on

- **Commit** If you want to do a local commit (changes will be visible only by you)
- or **Commit and push** If you want to do a commit on the shared repository
- See the full review process in golden rules paragraph



This ID is related to your last change not yet validated.

5.3.3. Rebase

In order to get the last version of the git repository, or if one of your commit is in **Merge Conflict** on gerrit, you need to do a rebase. Before doing it, commit all your uncommitted changes, otherwise you might lose it. After that you can click on team → fetch from upstream, then team → rebase. If your git is configured to do a fetch and rebase on pull, just select pull. If there is some conflicts during the rebase, correct them, then team → rebase → continue rebase. The rebase is done, you have the latest version of the git repository and your modifications. You can amend your commit and the "Merge Conflict" on gerrit will disappear.

5.3.4. Reset Mixed

In team → reset, you can find a useful functionality called Reset Mixed. The reset mixed will allow you to get the last version of the git repository (after a fetch from upstream), while keeping your modifications. It works like a rebase, except that your commit will be cancelled on your local workspace. You will be branched on the last commit on the git repository. Use it if you want to abandon a commit, do a fresh commit, or merge two of your commits in one for example. Reset Hard can be used if you want to cancel all your modifications. All modifications will be erased.

5.3.5. End

- Once your git is configured, import the project in your Java JEE view. (**File** → **Import** → type **maven** → **Existing Maven Project**).

You should now have the cw-wm project in your Java JEE view and some sub modules.

- On the parent pom.xml in cg-wm, do:
 - mvn install (to have all dependencies)
 - mvn eclipse:eclipse (to create .project and .classpath).

If an error about tools.jar appears during maven install, it's probably because the JRE is not well defined by eclipse. Install the last JDK and change the path to the JDK instead of the JRE (**Window** → **preferences** → **Java** → **Installed JREs**).

- To start the MultiTracker, run the class cg-wm\cg-msg-

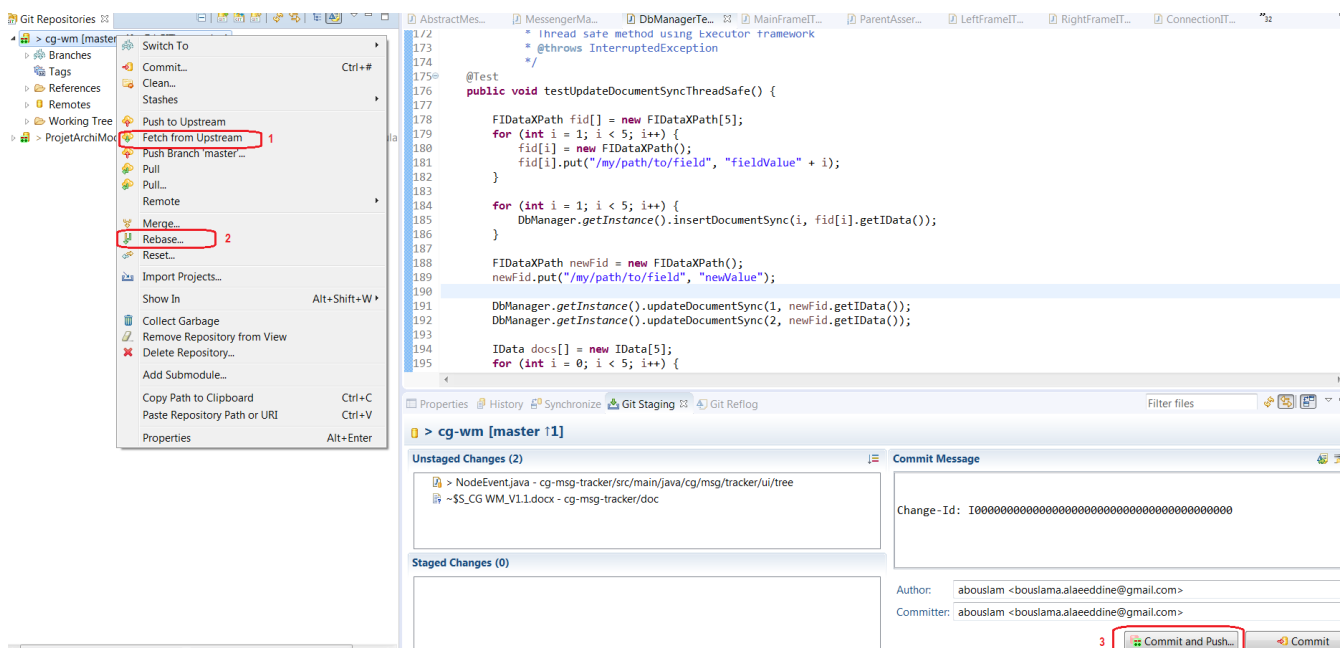
tracker\src\main\java\cg\msg\tracker\Tracker.java

5.3.6. Troubleshooting

Two commits at the same time

If you have a commit on Gerrit, and if you want to change a file that is already in this commit, you should amend this commit instead of making a second commit.

You can have two or more commits at the same time if they are not dependants. To do so, you have to do a reset mixed on the state before your first commit in order to commit the second one. It works like this : If A is the last commit on the git repository, you can do a first commit B. To make a second commit C, reset mixed on commit A, then commit. If you want to amend your commit B, reset mixed on A before doing it, and copy the description and change id for your commit on Gerrit, to paste it like it is a new commit. You also need to select again the files that were in this commit.



Pull from another developer

To download a change of another developer from Gerrit to your local :

- go to **Git Repositories** on your Eclipse
- right click on your repository
- select **fetch from Gerrit**
- on **Change** press **Ctrl+Space**
- select your change
 - To change is of the form :

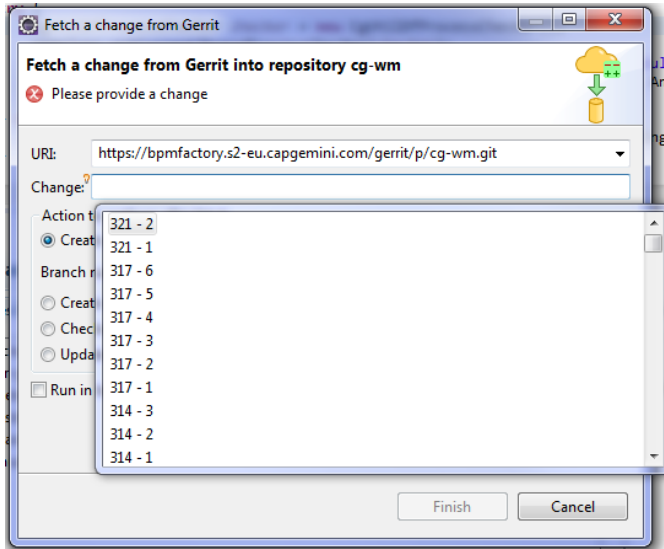
<(small) change number> - <patchset number>

- The small change number is visible in Gerrit page in the upper left area (clickable)

- Click on **finish**



If you don't have the option **fetch from Gerrit** : Go to the **Git repositories** view, under your repo, in **Remotes**, right click on **origin** and select **Gerrit configuration....** Check that everything is OK and click **Finish**. Now you should have the option.



To keep this branch up to date with the master :

- Go to **Git Repositories**
- Right click on your repository > **Pull**
- Navigate in you repository → **Branches** → **Local**
- Righth click on the **master** branch → **Rebase On**
- Resolve the conflicts if any

To switch back to your master, right click on your repo → **Switch To** → **master**.

Missing Change-Id in commit message footer

On your first push, you might get this error from Gerrit

```
[f57ea8b] missing Change-Id in commit message footer
Processing changes: refs: 1
Processing changes: refs: 1, done
ERROR: [f57ea8b] missing Change-Id in commit message footer
Hint: To automatically insert Change-Id, install the hook:
  gitdir=$(git rev-parse --git-dir); scp -p -P 29418 yremila@cadsdouane.pl.s2-eu.nvx.com:hooks/commit-msg
${gitdir}/hooks/
And then amend the commit:
git commit --amend
```

Doing a **reset mixed** on the initial commit would solve the problem.

If not, here is another solution :

- Download this file <https://gerrit-review.googlesource.com/tools/hooks/commit-msg>

- Put it in myproject/.git/hooks/
- Restart Eclipse
- Retry the commit

Last solution, requiring Cygwin :

```
gitdir=$(git rev-parse --git-dir); wget -P ${gitdir}/hooks/ http://bcouetil@cric.pl.s2-eu.nvx.com/gerrit/tools/hooks/commit-msg && chmod +x ${gitdir}/hooks/commit-msg
```

.classpath and other not-to-push files

If there are files in git repository not to be pushed, remove them in your next push :

- Update the .gitignore file, if not already done
- Go to **Git Staging** view
- Right click on the file → **Team** → **Untrack**
- The file should be moved to **Staged changes** (it can take a few seconds)
- This will be taken into account in next **Commit and Push...**

See SonarQube for an older build

SonarQube does not have history available for browsing, you can only see the last build. So you have to retrigger the gerrit patch to see specific data associated to your change.

You can do an empty **commit amend** from Eclipse. But you can also retrigger from Jenkins.

- Go to Jenkins homepage
- Navigate to the pipeline/job
- If your build is still in the history
 - Open it
 - Select **Retrigger**
- Else if your build has been deleted
 - Go to Jenkins homepage
 - Click on **Query and Trigger Gerrit Patches**
 - In **Query String**, put your change-id
 - Click **SEARCH**
 - Select the change
 - Click **TRIGGER SELECTED**

Double remote : get latest commits from gitlab into gerrit

In the case of a gitlab to gerrit migration, you may have a common ancestor but commits on Gerrit and commits on Gitlab. It's easy if you can replace the whole gerrit master, but here is the way to go

for a clean merge :

- have your gerrit clone in Eclipse
- Navigate to **Git** view
- Right click on your **Remotes** where there is already a Gerrit **origin**
- Choos* **Create Remote...**
- Create your gitlab remote while configuring fetch with only the **master** branch. Name it **gitlab**
- right click on the new remote and choose **fetch**
- right click on your repository and select **pull**
- Finish by this in command line :

```
git push origin master
```

Get rid of **ORIG_HEAD** / **FETCH_HEAD** in Git history

ORIG_HEAD is last value of HEAD before dangerous operation. This reference and FETCH_HEAD are not real commits, and can be hidden in **Preferences** → **Team** → **Git** → **History** by deselecting **Additional Refs**

5.4. Maven

- Change the conf/setting.xml of the installed maven, by adding the below tags

```
<server>
  <id>nexus-local</id>
  <username>svc-fr-cric</username>
  <password>ESBpwd2018</password>
</server>
```

```
<mirrors>
  <mirror>
    <id>nexus-local</id>
    <mirrorOf>*</mirrorOf>
    <url>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-public</url>
  </mirror>
</mirrors>
```

```
<profiles>
  <profile>
    <id>nexus-local</id>
    <repositories>
      <repository>
        <id>central</id>
        <url>http://central</url>
        <releases>
          <enabled>true</enabled>
        </releases>
        <snapshots>
          <enabled>true</enabled>
        </snapshots>
      </repository>
    </repositories>

    <pluginRepositories>
      <pluginRepository>
        <id>central</id>
        <url>http://central</url>
        <releases>
          <enabled>true</enabled>
        </releases>
        <snapshots>
          <enabled>true</enabled>
        </snapshots>
      </pluginRepository>
    </pluginRepositories>

    <properties>
      <snapshotUrl>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-snapshots</snapshotUrl>
      <releaseUrl>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-releases</releaseUrl>
    </properties>

  </profile>
</profiles>
```

```
<activeProfiles>
  <activeProfile>nexus-local</activeProfile>
</activeProfiles>
```

- Change the conf/setting.xml of the installed maven, by adding the below tags

```

<server>
  <id>nexus-local</id>
  <username>svc-fr-cric</username>
  <password>ESBpwd2018</password>
</server>

```

```

<mirrors>
  <mirror>
    <id>nexus-local</id>
    <mirrorOf>*</mirrorOf>
    <url>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-public/</url>
  </mirror>
</mirrors>

```

```

<profiles>
  <profile>
    <id>nexus-local</id>
    <repositories>
      <repository>
        <id>central</id>
        <url>http://central</url>
        <releases>
          <enabled>true</enabled>
        </releases>
        <snapshots>
          <enabled>true</enabled>
        </snapshots>
      </repository>
    </repositories>

    <pluginRepositories>
      <pluginRepository>
        <id>central</id>
        <url>http://central</url>
        <releases>
          <enabled>true</enabled>
        </releases>
        <snapshots>
          <enabled>true</enabled>
        </snapshots>
      </pluginRepository>
    </pluginRepositories>

    <properties>
      <snapshotUrl>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-snapshots/</snapshotUrl>
      <releaseUrl>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-releases/</releaseUrl>
    </properties>
  </profile>
</profiles>

```

```

<activeProfiles>
  <activeProfile>nexus-local</activeProfile>
</activeProfiles>

```

- Change the conf/setting.xml of the installed maven, by adding the below tags

```

<server>
  <id>nexus-local</id>
  <username>svc-fr-cric</username>
  <password>ESBpwd2018</password>
</server>

```

```

<mirrors>
  <mirror>
    <id>nexus-local</id>
    <mirrorOf>*</mirrorOf>
    <url>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-public/</url>
  </mirror>
</mirrors>

```

```

<profiles>
  <profile>
    <id>nexus-local</id>
    <repositories>
      <repository>
        <id>central</id>
        <url>http://central</url>
        <releases>
          <enabled>true</enabled>
        </releases>
        <snapshots>
          <enabled>true</enabled>
        </snapshots>
      </repository>
    </repositories>

    <pluginRepositories>
      <pluginRepository>
        <id>central</id>
        <url>http://central</url>
        <releases>
          <enabled>true</enabled>
        </releases>
        <snapshots>
          <enabled>true</enabled>
        </snapshots>
      </pluginRepository>
    </pluginRepositories>

    <properties>
      <snapshotUrl>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-snapshots/</snapshotUrl>
      <releaseUrl>https://cric.pl.s2-eu.nvx.com/nexus3/repository/maven-releases/</releaseUrl>
    </properties>

  </profile>
</profiles>

```

```

<activeProfiles>
  <activeProfile>nexus-local</activeProfile>
</activeProfiles>

```

6. Appendix

6.1. Revision marks

Differences since last tag

Unresolved directive in subdocs/_closure.adoc - include::D:\workspaceJava\cg-wm\target/generated-docs/history/developer-guide.adoc.diff[]