

NOM POUPA

Prénom Adrien

Promo M1 2018

Date 11/01/17



POUPA Adrien
M1 - 2016

I : 10/10

MATIÈRE

R. Sicard

Project Management - Part 1

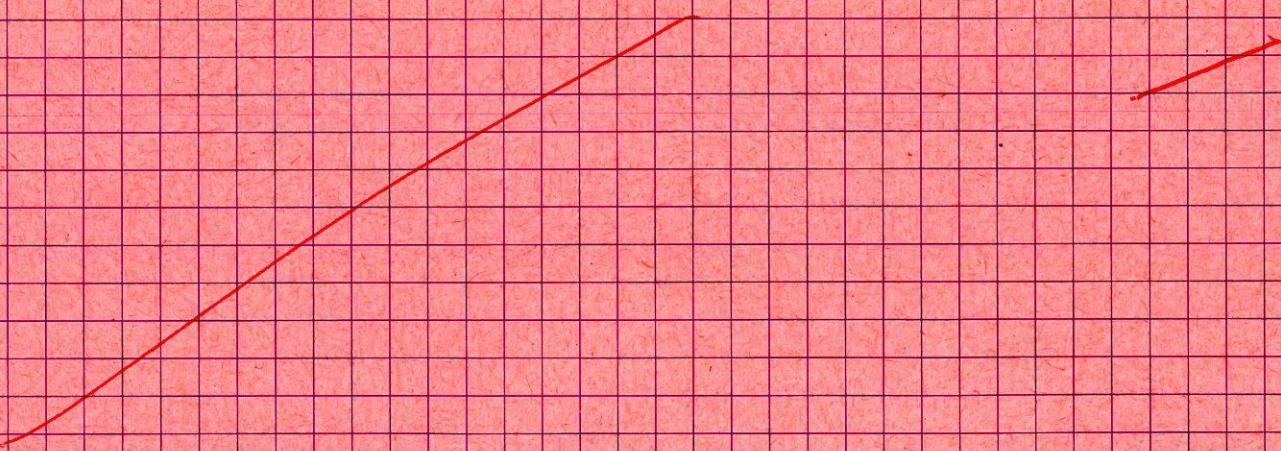
1. The four main steps during a software development project are: requirement analysis, functional specification, design and programming.

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Smart & Soft gives all access to the client so they see what's going on, nothing is swept under the carpet.

They do not communicate by mail but rather Slack.

I think they use Gerrit to review their code on Git and Jenkins for continuous integration.



2. The main difference between Git and Subversion is that Subversion is centralized while Git is decentralized.

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This means that all Subversion users must have access to the development (SVN) server in order to work whereas each Git user has the repository's full history locally, allowing him to work and commit offline.

3. A configuration item is used to configure repositories current settings. For example, Git creates an hidden folder ".git" at the top of the project containing a ".gitconfig" file that contains the main information of the repository: its remote URL, the current branch, eventually the user used to commit and push. It is also possible to create a ".gitignore" file within a folder that will indicate to Git what files/folder not to track.

A baseline represents the main branch of a project, the most important version for now, typically the master branch in Git.

4. In SVN, a new revision is created after each commit. A revision is a global "state of art" of the project. It is typical to SVN, Git does not give as much importance to revisions; instead, a unique hash is created after each commit. However, Git and SVN share the same conception for versions. A version is a point of history in a repository, marking the current state as "version X". It is used to release a new version of a software. The version number is usually displayed to the end-user, unlike revision number.

* A revision number is only used by developers.

5. A branch is a new space to work on the files from the same repository without interfering with other developer's work.

For example, if a bug is detected, a new branch can be created to fix this one bug and when it is judged stable enough, the new branch can be merged back in the branch it was created from.

Z

Another example is the development of a new feature, it can be done in a new branch, tested until it is stable and merged.

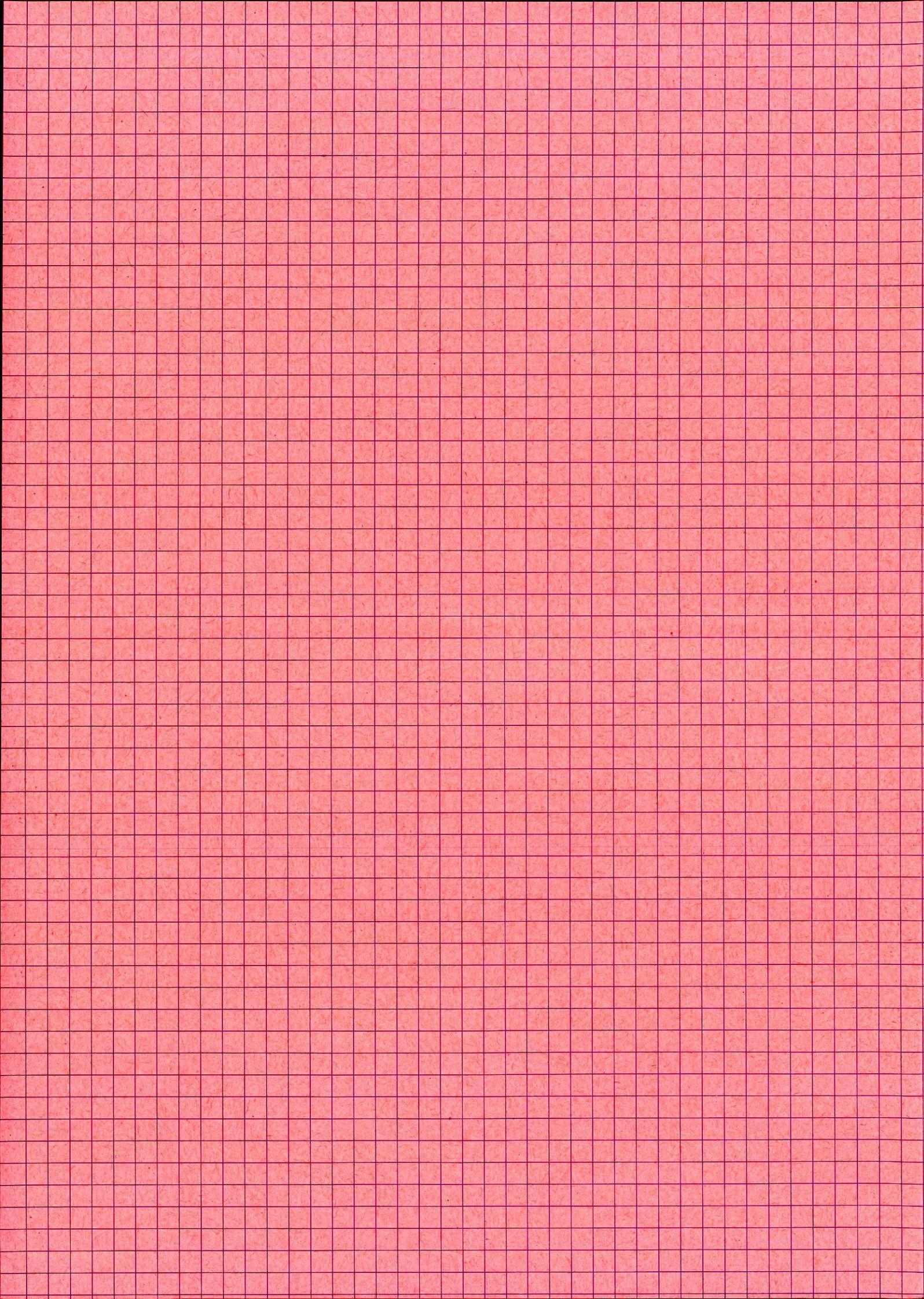
Or we could use two branch, one for version 1 and another for version 2 to develop both versions in parallel in the same repository.

6. In SVN, a repository is the whole project containing all the files and the branches.

A working directory is the folder containing the files that are used (source files).

The trunk is the default branch.

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N. Garcia

1/2 ~~28,6~~
~~6,7~~

MATIÈRE Project Management - Part 2



1.1 Time / Cost / Quality

2. Triple Constraint means each element is dependent on the others, one cannot have less time with the same cost and quality, etc.

3. At the beginning of a project, the cost of changes is lower.

- 4. - Project Time Management
 - Project Cost Management
 - Project Quality Management
 - Project HR Management
 - Project Stakeholder Management
 - Project Communication Management
 - Project Procurement Management
 - Project Risk Management
 - Project Scope Management
- Independent:

5.

6. Initializing
Planning
Executing

Monitoring and controlling (during all project)
Closing the project

7.

8.^{0,3} That depends on many factors: if it is still the beginning of the project and his request can be done easily, it can be included. IF it is not, we can negotiate with him and tell him that it has a cost to make him understand. If he is willing to pay the price, no problem otherwise it is the role of the project manager to make him understand that he cannot get much more after the contract has been signed and the project has begun. Change Management - External Impact

- Awareness
- Set Approval
- Update
- Notify

g-

10' B/C/A

11' C

12. WBS has for purpose to break a big tasks into much smaller tasks with an order of executing and scopes (eg: plan a wedding)

13^o A/E/F/B
C E A D B

14. The critical path is a tool that allows to see which path of the project will take the longer time and helps visually to see how the steps of the project will be done.

15^o It is important because it allows to see latest and earliest start/finish of each task, allowing the PM to know if he is late or schedule or not. Any delay in activities will delay the whole project

16^{o,5} a) We can assign more persons on the project or make the current work more. Crashing
Fast tracking

b)^{o,5} It is harder to manage.

→ cost
→ risk

17. Earned value is the value created by the team developing the project. Work performed

$$18 \text{ a)} CV = EV - AC = 6000 - 8000 = -2000$$

$$CPI = EV / AC = 6000 / 8000 = 6/8 < 1$$

b) Since $CV < 0$ and $CPI < 1$, the results are bad and the project costs too much compared to what it gains.

c) 1) $SV = EV - PV = 6000 - 7000 = -1000$

$SPI = EV / PV = 6000 / 7000 = 6/7 < 1$

d) 1) Since $SV < 0$ and $SPI < 1$, the results are bad.
The project is behind schedule.

19. a) $CV = EV - AC = 5000 - 5000 = 0$

b) $SV = EV - PV = 5000 - 10000 = \frac{-5000}{7000} = -\frac{2}{7}$

b) We did not spend more than planned but we are lagging behind schedule.

20. Non conformance

21.

22.

23. ^{o.8} Evaluate cause and effects. Major causes

24. System Testing ↗ Functional specification

^{o.5} User acceptance testing — Design requirement

Integration Testing — Requirement analysis design

Unit testing — Programming

25. 1 a)

1 b) c

26. 1 A

27. 1 E

28.

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MATIÈRE Project Management

2/2

29.

30/ We must solve the risks with a high probability and a high impact first, then high probability with low impact and low probability with high impact.

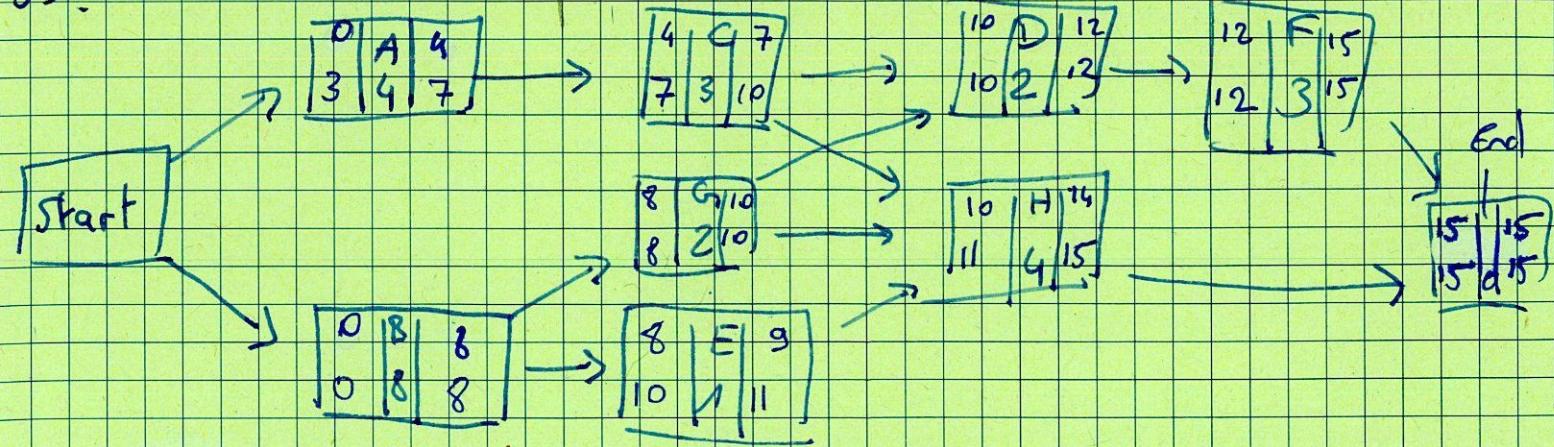
31? Ignore it
- prior
Take care of it - manage
Report it - mitigate
- accept

32/ He should be taken care of as soon as it's possible.
Manage carefully

33. a) e

34.

35.



- a) Critical path: BGDF (14 weeks)
- b) BGDF would take ¹⁵ weeks and the project would be delayed. no
- c)
- d)
- 36) Reduce both A and M (9000 €)
- 37) We should take the risk and make sure that the French team speaks a proper English and the offshore team also speaks a proper English, at least the PIs. There should be a video conference call at least everyday between the teams to make sure they understand each other.
- 38) We select provider 3. (see matrix in the subject)
↳ 6,25/10

Prov 1: 5,6/10

Prov 2: 4,7/10

