

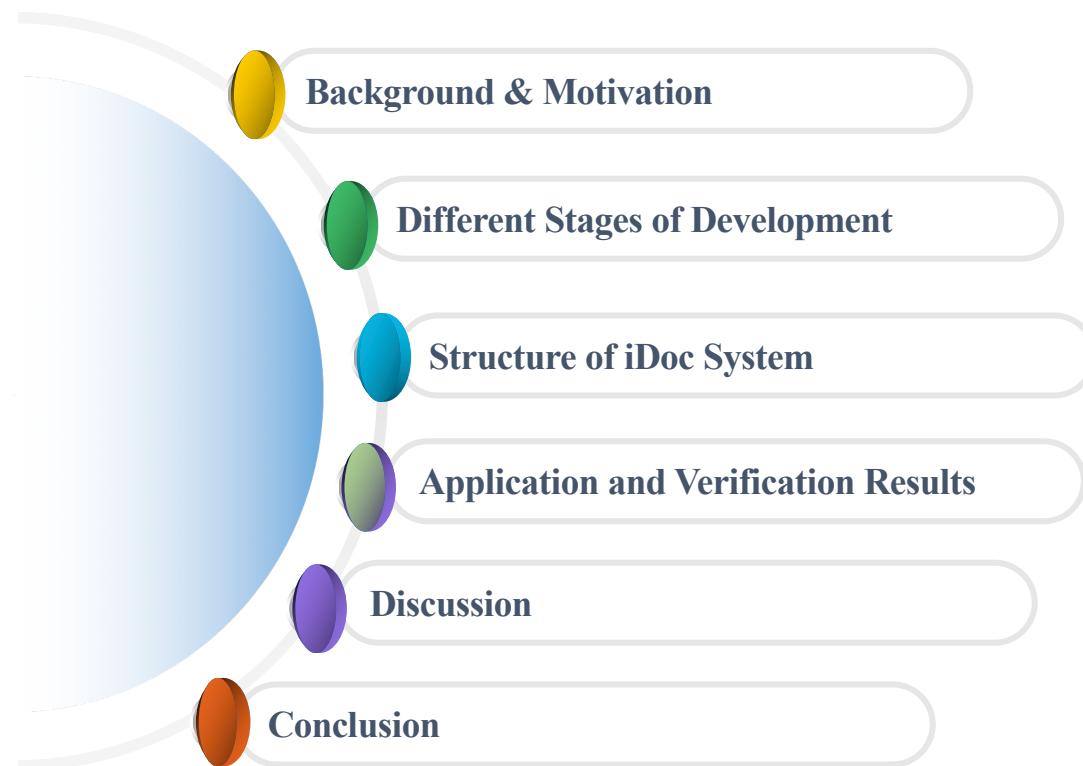


DevDocOps: Towards Automated Documentation for DevOps

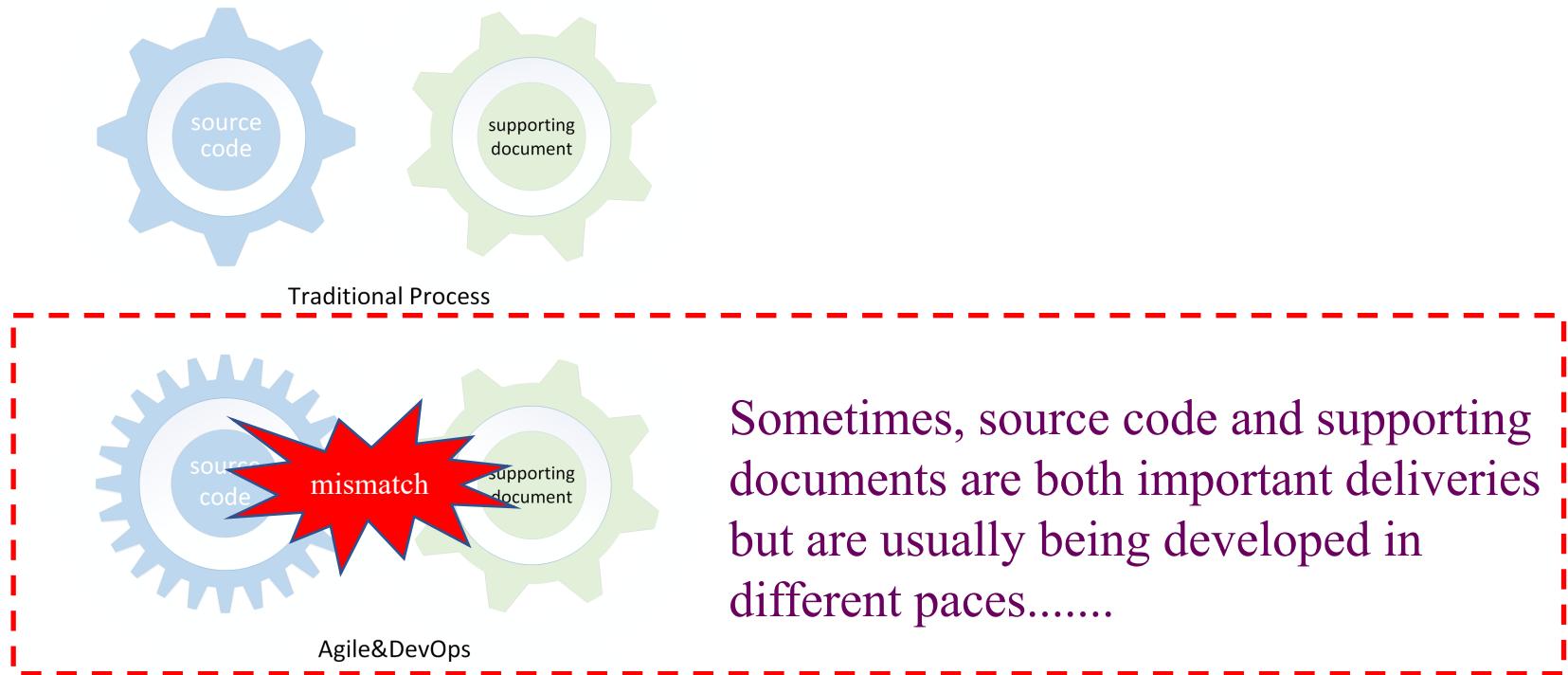


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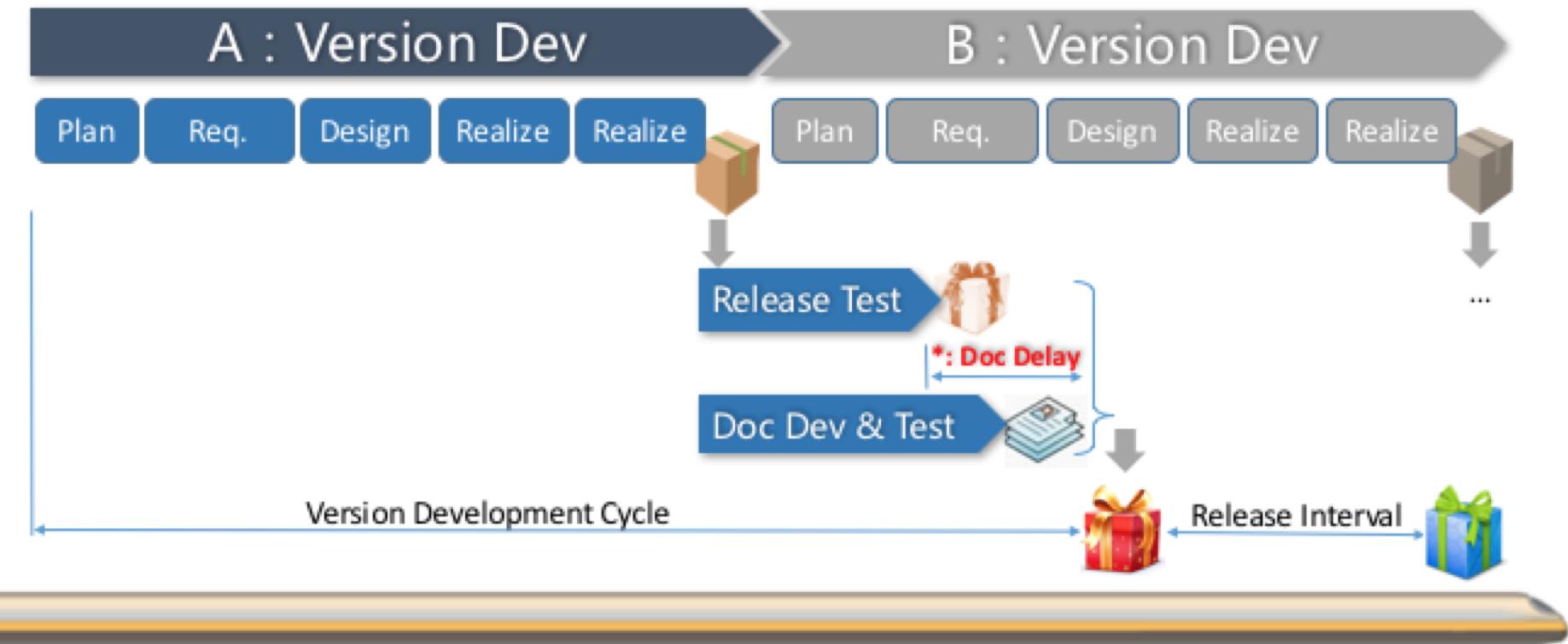
Contents



Background & Motivation

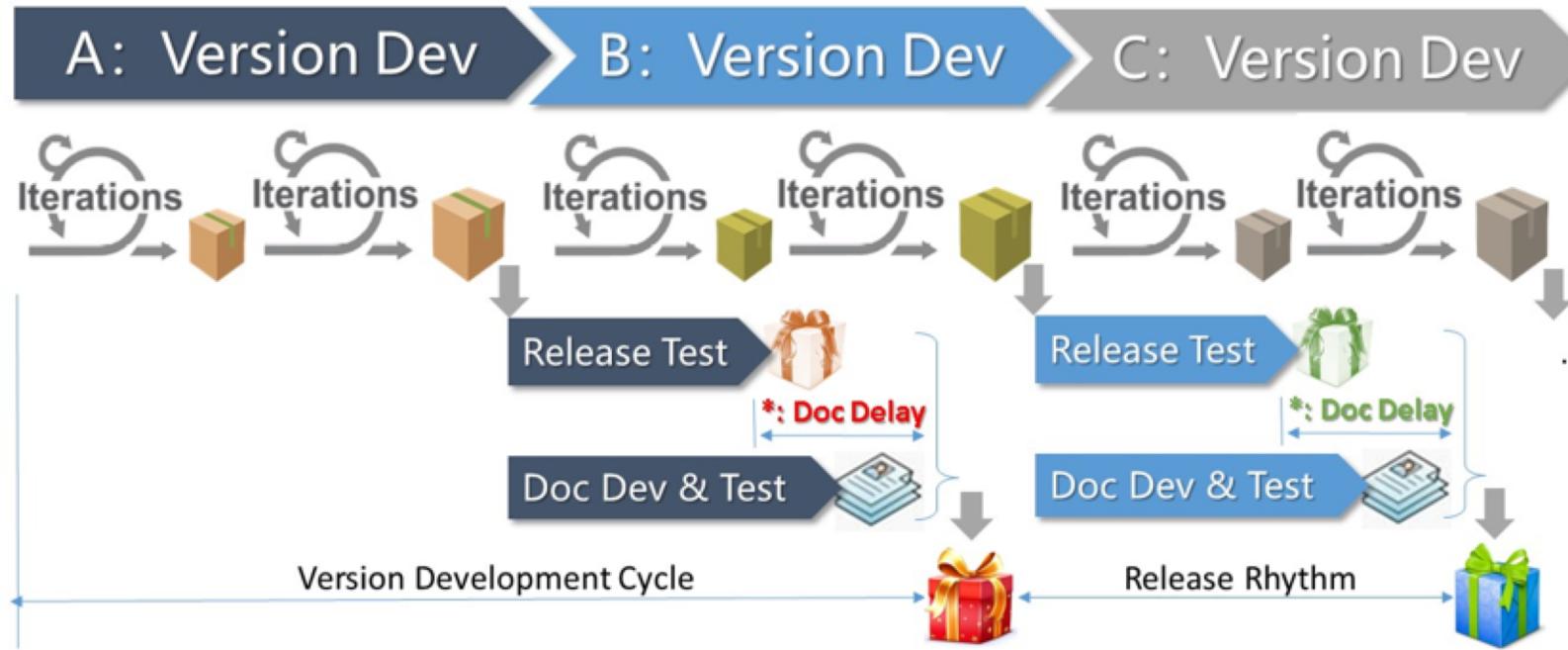


■ Stage 1- the traditional way



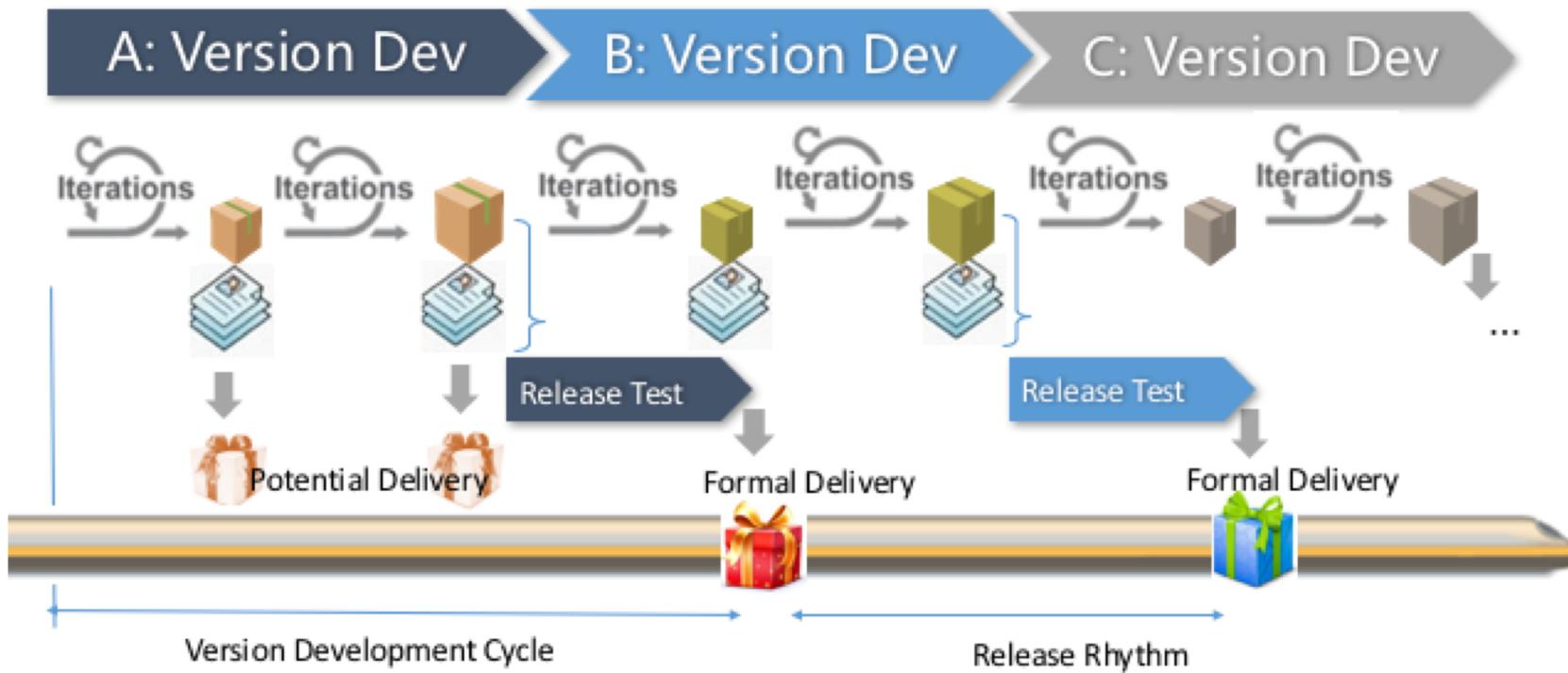
- 10-13 months for each version delivery(On average, 1 month to develop and test supporting documents)
- Technical writers are responsible for developing the supporting documents
 - The “throw and catch”

■ Stage 2- the Agile and DevOps way



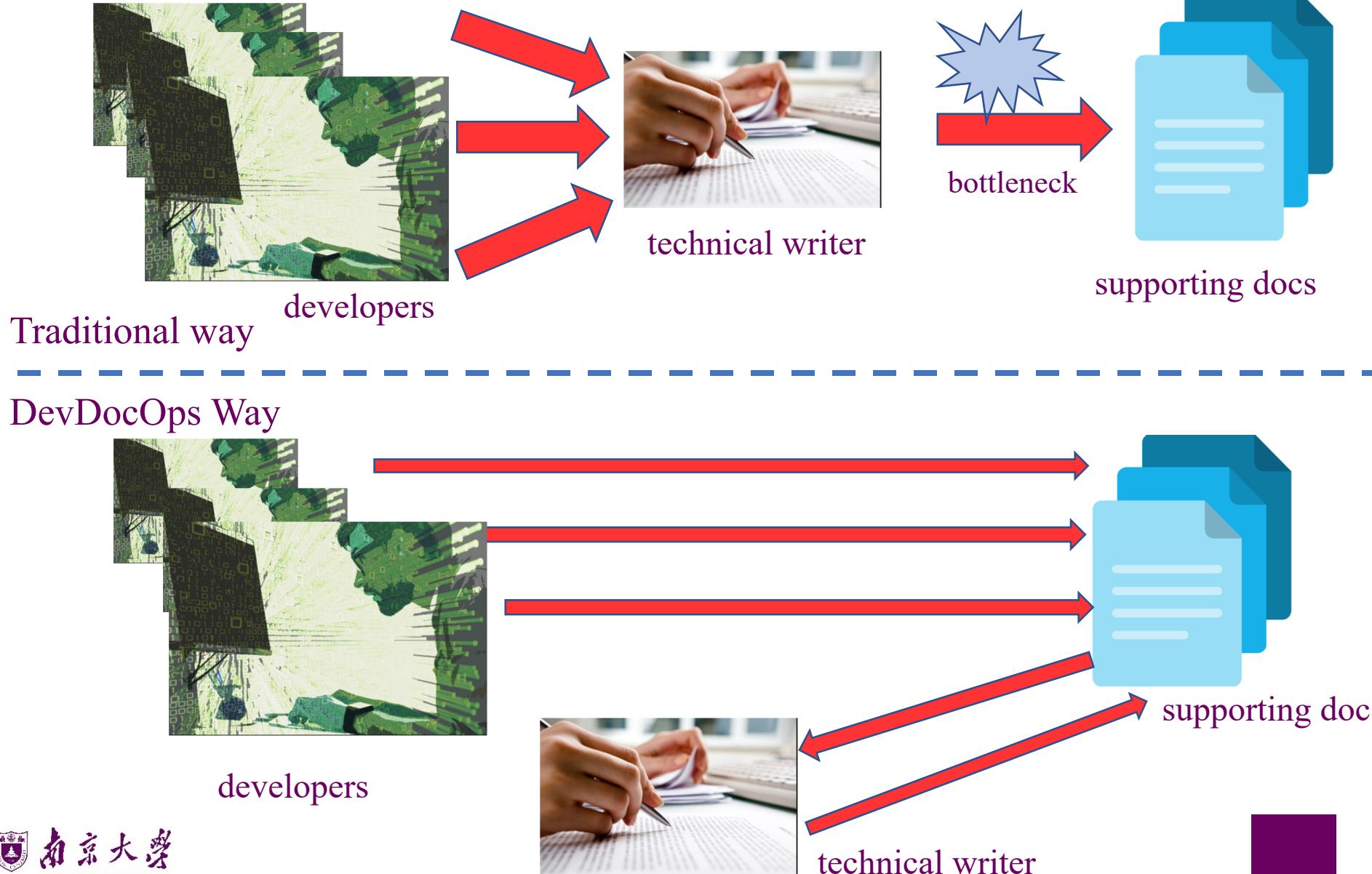
- Technical writers are responsible for developing the supporting documents
- Still, 10 -13 months for each version delivery
 - Although features are ready, supporting documents are not!
 - Communication, discussion, consulting consumed lots of effort, resulting still 1 month or so to deliver supporting documents, even more...
 - No one likes to change

■ Stage 3- the DevDocOps way



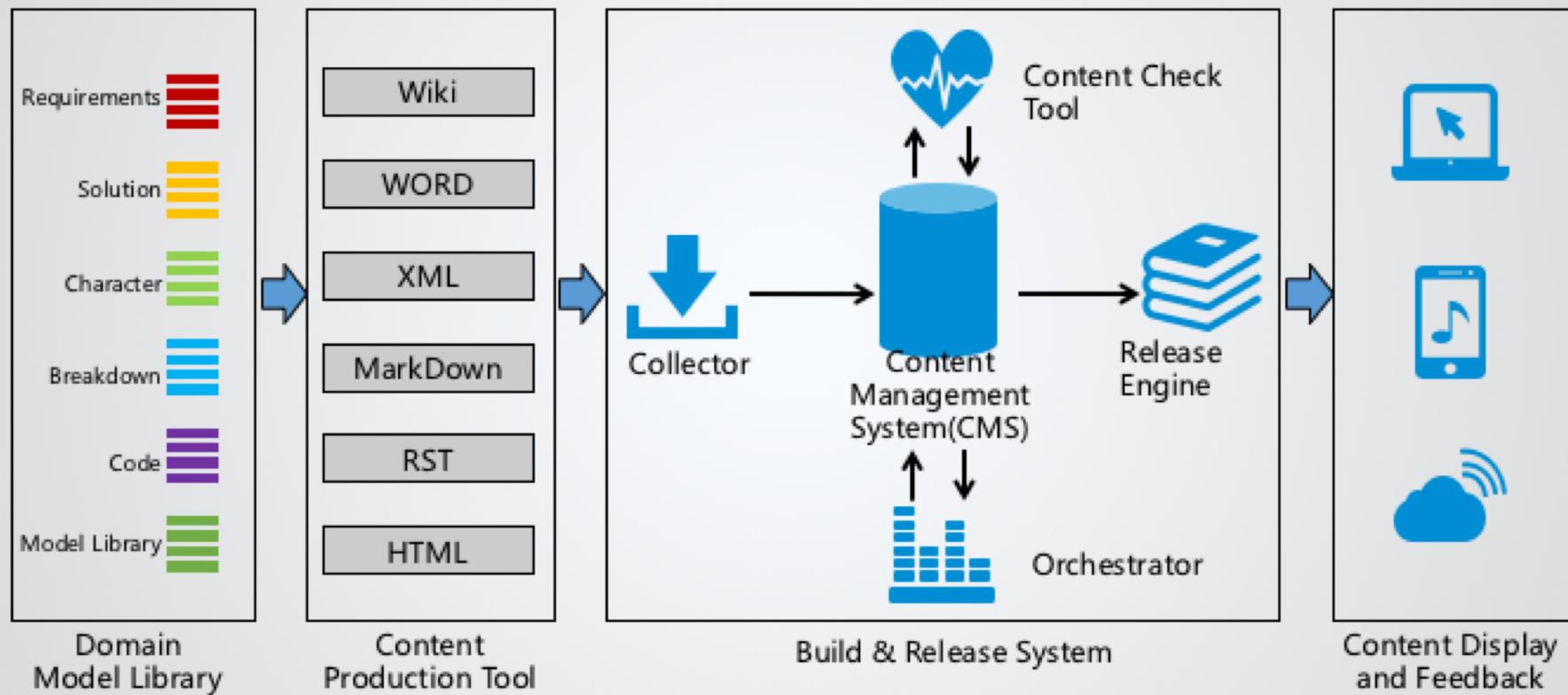
- Developers produce and prepare near-ready documenting elements
- Organized and supported by templates, an *iDoc* system integrate and manage supporting documents
- Technical writers are responsible for polishing the supporting documents

The flow

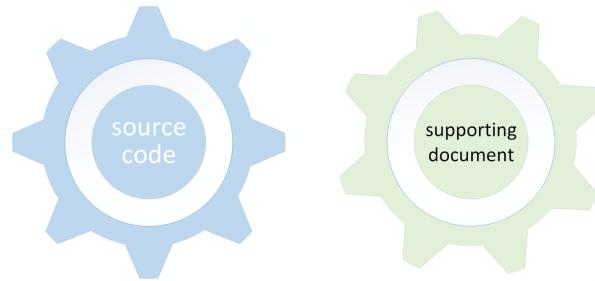


The Information Flow of iDoc System

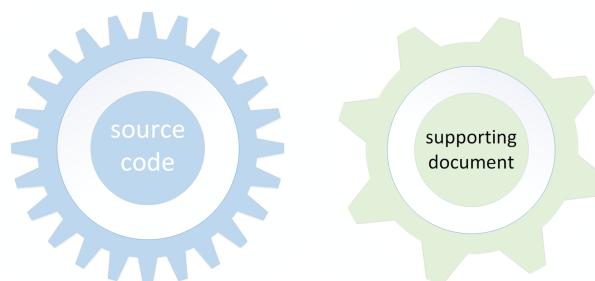
The information flow of iDoc system



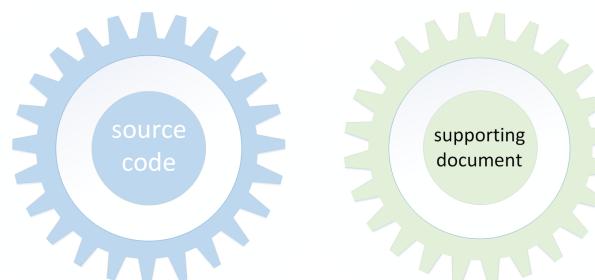
DevDocOps



Traditional Process



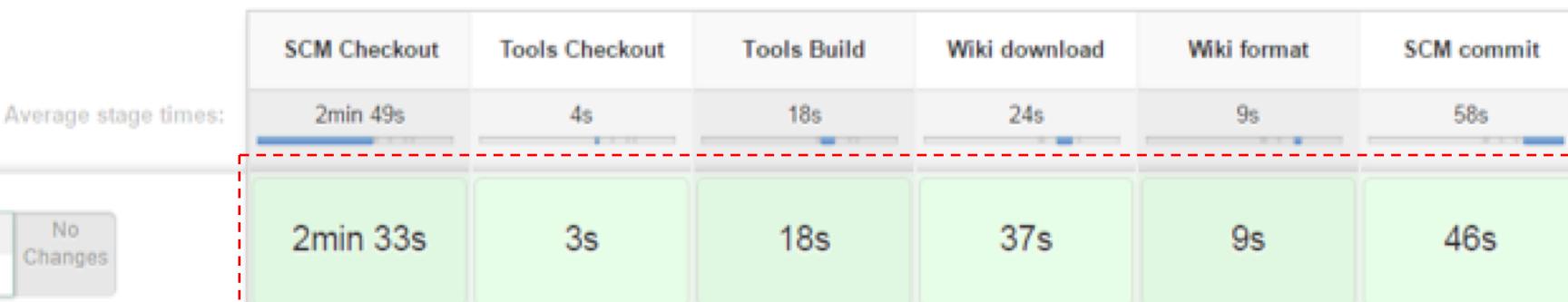
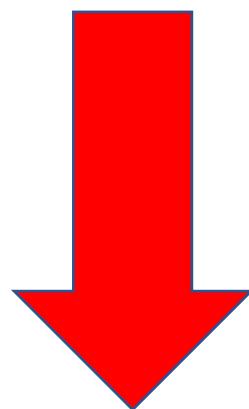
Agile&DevOps



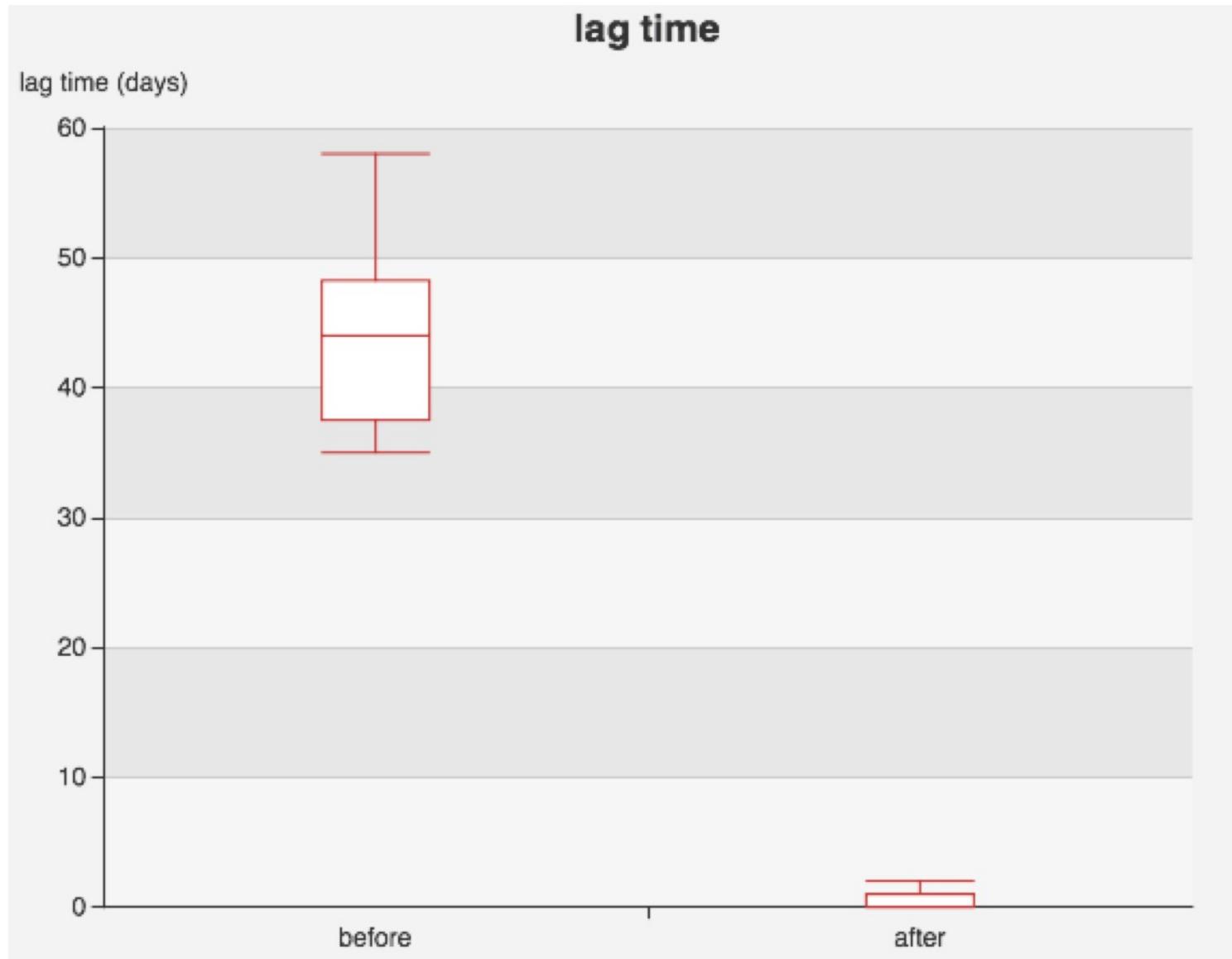
The rhythms are fit now!

Some results — building time

```
F:\>Doc_Compiler_Run.bat
pack start , time : 2019-02-10 14:06:23
f:\zstepack\bin\ZTEPack.exe /callfunc /documents:"f:\zstepack\IMS\doc\src" /setting:"f:\zstepack\IMS\doc\package.xml" /package:"f:\zstepack\IMS\doc\pkg\out.zed"
pack finished , time : 2019-02-10 16:08:05
"---"
```



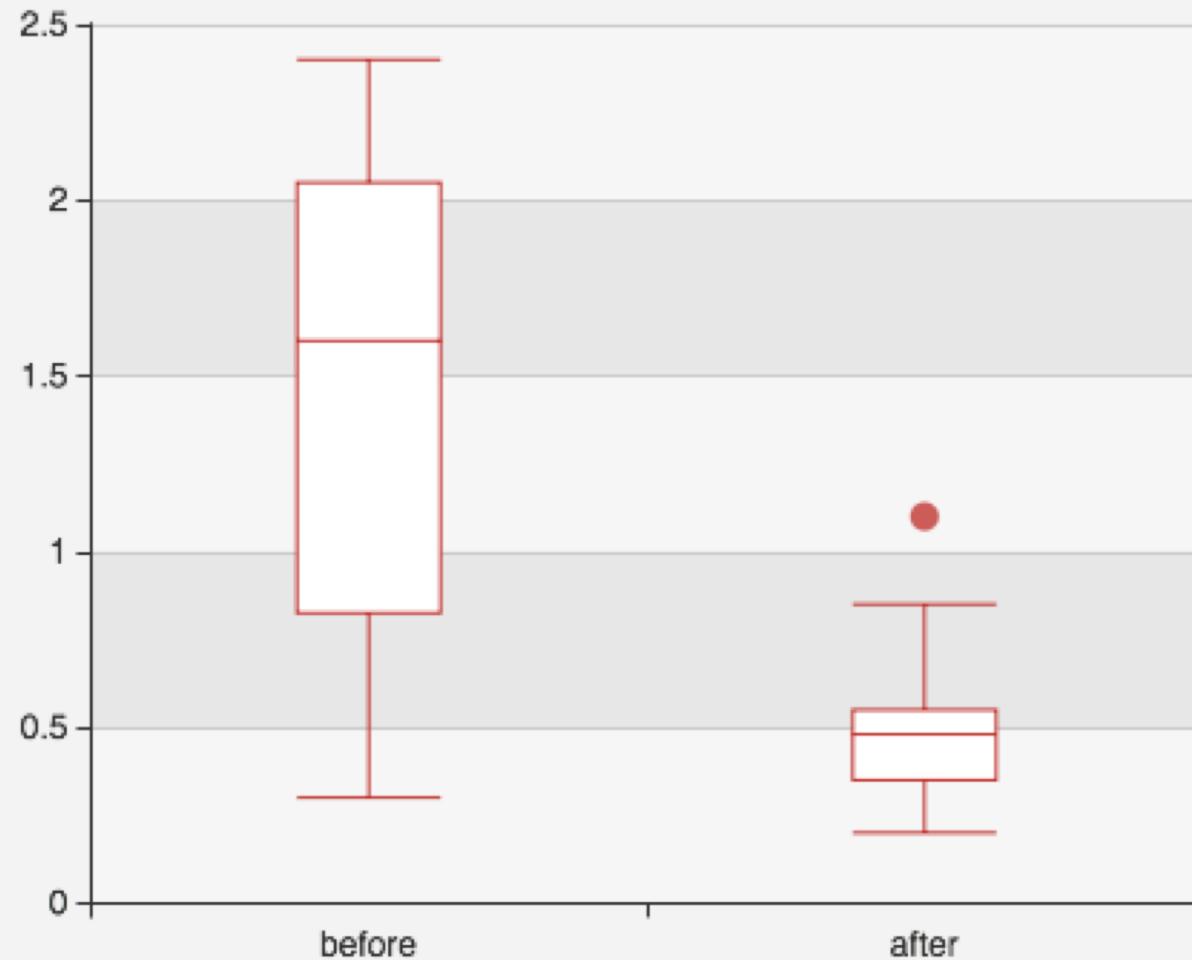
Some results (9 projects)—— lag time



Some results (9 projects) —————— quality

the number of errors in supporting documents

errors per page



■ Some results — Feedback

From developers: “*When updating the document, there is no need to worry about missing changes, and the result can be seen at any time through the iDoc system, which improves the work efficiency.*”

From technical writers: “*Basically (we) do not need to care about the technical content in the support documents, instead we can focus on wording and expression so as to improve the quality of the final document.*”

From marketing staff: “*Compared with the previous ones, there are fewer documents related issues raised by customers. Even if such an issue occurs, it can be addressed in a short time, the customers are satisfied with this.*”

From customers: “*Compared with the past, the support documents are now provided in a more timely and accurate fashion, and the new features can be put into practical use in a short time.*”

■ Discussion

- Implication
 - Changes in developers' mindset and working style as well
 - Reinforce the value of Agile
 - To strengthen build-in quality in software artefacts
- Limitation
 - Extra requirement and specific training for R&D engineers
 - Types of documents(cost consideration), etc.

Conclusion & Future work

- To deliver full value to customers requires both source code and supporting documents.
- *DevDocOps* supports continuous documentation, which synchronize the pace of feature development and corresponding documentation.
- Future work
 - Automated quality inspection (AI technologies)
 - To expand the application area (e.g., more types of docs)



THANKS

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