

Questions to Developers

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1 Information about the developers and users

[Jegatheesan, 2016]

1. Interviewees' current position/title? degrees?
2. Interviewees' contribution to/relationship with the software?
3. Length of time the interviewee has been involved with this software?
4. How large is the development group?
5. What is the typical background of a developer?
6. How large is the user group, and how do you estimate the user group size?
7. What is the typical background of a user?

2 Information about the software

[I drafted another version without considering our measurements —AD]

[3 aspects: dev process, software quality, user feedback —AD]

1. Currently, what is the biggest obstacle against your development process?
2. In order to solve this problem, is there any improvement needed for your development process?
3. What is your documentation process? Do you think improve this process can solve this problem?
4. In the past, is there any major obstacle to your development process that has been solved? How did you solve it?
5. What is your software development model? For example, waterfall, agile, etc.

6. What is your project management process? Do you think improve this process can tackle the current problem? Were any project management tools used?
7. ~~Can you name several software qualities that are the most important to this project?~~
8. Was it hard to ensure the correctness of the software? If there were any obstacles, what methods have been considered or practiced to improve the situation? If practiced, did it work?
9. When designing the software, did you consider the ease of future changes? For example, will it be hard to change the structure of the system, modules or code blocks? What measures have been taken to ensure the ease of future changes and maintains?
10. Do you think the users can understand your software well? Has there been any problem to use this software?
11. Do you think the current documentation can clearly convey all necessary knowledge to the users? If yes, how did you successfully achieve it? If no, what improvements are needed?
12. Do you have any concern that your computational results won't be reproducible in the future? Have you taken any steps to ensure reproducibility?

References

Thulasi Jegatheesan. Case studies in document driven design of scientific computing software.
Master's thesis, McMaster University, Hamilton, Ontario, Canada, July 2016.