Ao's Notes on Medical Imaging Software

Ao Dong

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Table 1: Revision History

Date	Author(s)	Change
Jan/30/2020	Ao Dong	Initial draft
Feb/02/2020	Ao Dong	Update
Feb/08/2020	Ao Dong	Changed table to a spreadsheet link

1 Software List

Link to the software list (Google Sheet): LINK

2 Quality Measurements

2.1 Interoperability

There are not many measuring methods in papers, and most of them are very complicated.

- Can the workstation software (for visualization, analysis, etc.) connect with the PACS (server)?

- Does the software use output from or provide input to other software?

- Can the software work with customized plug-ins?

Measuring aspects from [Smith et al., 2018]:

- Does the software interoperate with external systems? (yes*, no)

- Is there a workflow that uses other softwares? (yes*, no)

- If there are external interactions, is the API clearly defined? (yes*, no, n/a)

2.2 Visibility/Transparency

- Does the software use any version and issue tracking system, such as Github, Gitlab for development?

- Does the software have documents recording the development process and status?

- Does the software have clear release log with essential information, such as release date, bug fixed and new features?

Measuring aspects from [Smith et al., 2018]:

- Is the development process defined? If yes, what process is used. (yes*, no, n/a)

- Ease of external examination relative to other products considered? (1 .. 10)

2.3 Productivity

Can be measured by the summation of all output (such as the number of lines of new code, the number of pages of new documents and the number of new test cases) produced per person-day.

However, it is hard for a third party to carry out the above method without knowing the exact number of developers or how much time they spent on the project.

2.4 Completeness

2.5 Consistency

References

W. Spencer Smith, Zheng Zeng, and Jacques Carette. Seismology software: State of the practice. *Journal of Seismology*, 22(3):755–788, May 2018.