

Software traceability

Tracing the value of software traceability in software development.

Welcome to the survey about the value of software traceability in practice.

With this anonymous questionnaire, we aim to gather **your view and needs** regarding traceability in the software development process.

This survey is part of a research project that is being conducted at [LOCATION], with the main objective of exploring the value of software traceability based on the perspective of practitioners. With the results, we aim to find **gaps** between research and software traceability practices with the goal to increase traceability support for practitioners

To this end, we kindly ask you to fill in this questionnaire.

You are eligible to fill in the survey if you are involved in the software development process, be it as a Product Owner, Scrum Master, Developer, Architect, Project manager, Designer, Tester, Requirements Analyst, or any other role closely involved with the development process.

Thank you for your participation!

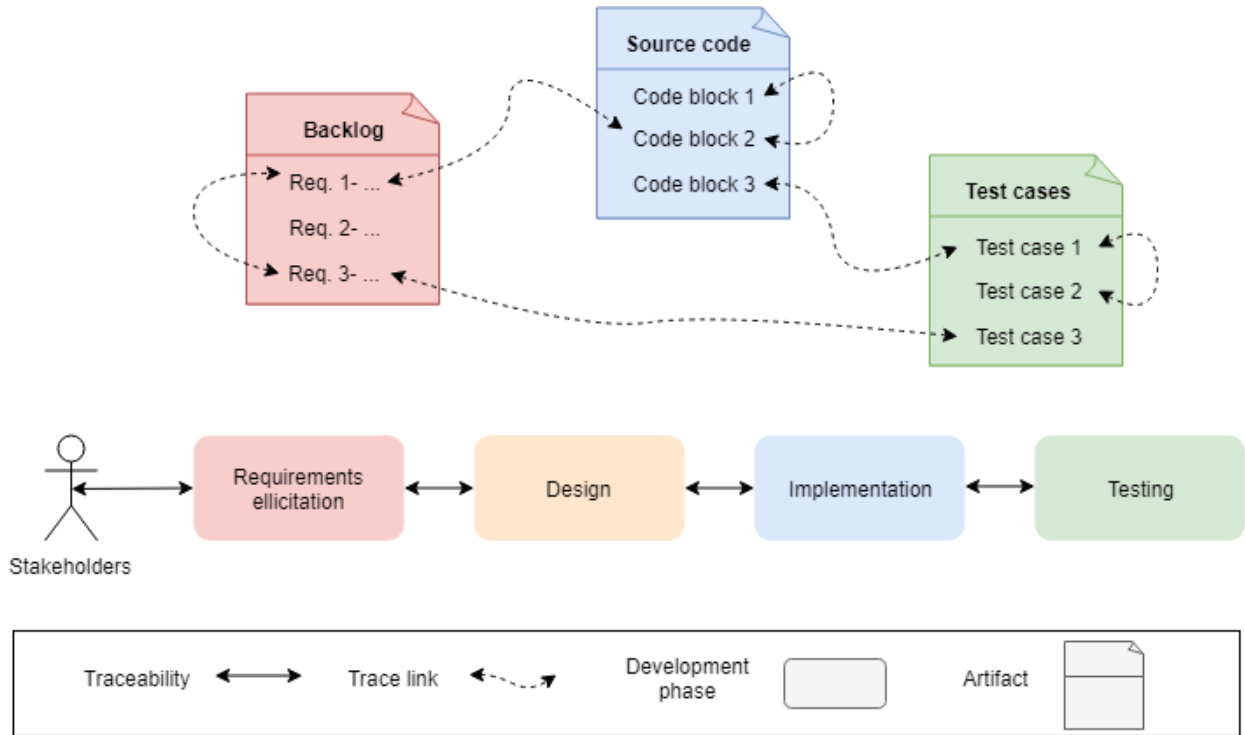
For questions about the research or issues with filling in the questionnaire, you can send a mail to [EMAIL REMOVED]

[CONTACTS REMOVED]



What is software traceability?

In the context of this research we see software traceability as the ability to create, maintain, and use links between diverse software development artifacts, including requirements, source code, test cases, architecture, and any other development artifacts. An illustration is provided below.



When answering questions in the survey, please provide responses based on the artifacts you are involved with.



Demographic questions

In which country do you currently reside? *

What is the size of your company? *

The following questions are about the projects or products that you are generally involved in.

Which role are you typically assigned to during software development projects? (An additional textbox will pop up when choosing 'other'.) *

On average, how many people are involved in the software development projects you participate in? *

Think of the people that interact with software development artifacts such as requirements, architecture, code, test cases, user feedback, user manuals.

In the remainder of the survey please provide answers based on your experience in projects of the size that you have selected.

Which software development paradigm is normally used in the projects you are involved with? *

- Agile: Scrum, Kanban, XP, ...
- Traditional: Waterfall, Incremental Development, V-model, Spiral, ...
- Mixed
- Other

Would you characterize the industry you work in to be highly regulated? (Examples: Healthcare, Automotive, Aerospace, Finance, ...) *

- Yes
- No

Would you characterize your software as safety-critical? (Examples: software for medical, automotive, railway, aviation, infrastructure, and nuclear systems, ...) *

- Yes No

How often is software traceability performed in the projects that you are involved in? When answering 'Always' or 'Sometimes' one extra question will pop up. *

- Always
 Sometimes
 Never



Current situation

Please indicate your level of agreement with the following statements based on your opinion and experiences of your current or most recent projects that you are typically involved in.

N/A if not applicable or if you do not want to answer.

Traceability Management *

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	N/A
1. Traceability costs in money, time, and effort are the main inhibitor for adopting (more mature) traceability practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. There is insufficient guidance within the company on how to establish traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Traceability costs outweigh the expected benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. It is difficult to access and obtain information sources (people and artifacts) to be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

able to establish traceability					
5. Traceability is mostly performed in an ad-hoc and non managed fashion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Social collaboration practices *

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	N/A
6. Traceability is of high importance for the software development process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The allocation of time, staff and resources are often insufficient to be able to properly establish and maintain traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. There is a lack of collaboration between involved stakeholder teams in regards to establishing and maintaining traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. It is unclear which roles are responsible for traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Technical aspects *

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	N/A
10. Traceability tools do not satisfy our traceability needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. It is difficult to establish traceability because development artifacts are stored in multiple locations/repositories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. The tools used for traceability are too complex to use effectively and to integrate with our existing tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Traceability is mostly performed manually	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Need of establishing traceability

Please prioritize the following statements based on your needs of your current or most recent projects that you are typically involved in.

The possible prioritizations are:

Not needed -- not of importance

Nice to have -- desirable but not necessary

Should have -- important but not critical

Must have -- critical

Management needs *

	Not needed	Nice to have	Should have	Must have	N/A
1. There is a need to reduce the costs of traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. There is a need for more guidance in the company regarding traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. There is a need to have a more clear overview of the costs and benefits regarding traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. There is a need to have easier access to information sources to be able to establish and maintain traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. There is a need to perform traceability in a more managed fashion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Social collaboration needs *

	Not needed	Nice to have	Should have	Must have	N/A
6. There is a need to increase the awareness of the importance of traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. There is a need for more staff, time, and resources to properly establish and maintain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

traceability					
8. There is a need for more collaboration between involved stakeholder teams regarding traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. There is a need for more communication about who are responsible for traceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Technical needs *

	Not needed	Nice to have	Should have	Must have	N/A
10. There is a need for better traceability tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. There is a need for a more centralized development artifact repository to establish traceability more easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. There is a need for less complex traceability tools and easier integration with our existing tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. There is a need for more traceability automation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Can you briefly describe the reasoning behind your answer(s)?

Comments and feedback

Feel free to leave any comments regarding this questionnaire or the topic of traceability.

When finished, do not forget to press on the submit button!

Is there anything else you would like to add?

If you are interested in the results of this research and would like to receive them, please provide an email address.

Would you be interested in helping us with the research with a short interview about the context and reasoning behind your answers?

- Yes
- No

The contact information will only be used for distributing the results. In case of interest for an interview, it will also be used as a reference to your answers to be able to conduct a more relevant interview. The results of the interview will be anonymized as well.



Submit