A survey on the use of informal diagrams in industrial development practice

PURPOSE OF THE SURVEY

This survey is part of a master thesis in software engineering. Its purpose is to investigate the use of informal diagrams in software engineering practices.

ETHICAL CONSIDERATION

Target audience: This questionnaire is for software practicioners that are involved in creating, editing or reading/using diagrams during their daily work.

Voluntary participation: The participation in this survey is entirely voluntary. You have the freedom to choose whether or not to participate.

Confidentiality and anonymity: The survey is completely anonymous, meaning that no identifiable information will be collected. The author has full responsibility for all the data collected and ensures that participants' personal information remains confidential.

Policy of handling the data: The information you provide will be used only for the study purpose and they will not be shared with any third parties. The data will be deleted after the completion of the study, in accordance with the GDPR (General Data Protection Regulation).

Withdrawal of the participation: You have the right to withdraw your participation from the survey at any point without providing a reason. The data provided up to that point will not be included in the analysis. If you decide to withdraw, your decision will be respected and not affect you in any way. To withdraw your submission, use the "Edit Response" link provided after the submission. If you have lost the confirmation page or email, you can still access to your response by using the original link to the form.

Compliance with APA guidelines: This survey implements the APA (American Psychological Association https://www.apa.org/ethics/code/ethics-code-2017.pdf) guidelines to ensure your privacy is completely protected throughout the study process. By participating in this survey, your rights as a participant are being upheld and respected. This survey consists of 19 questions an it takes no longer than 10 minutes to be completed.

If you have any questions related to the survey or you are interested for the final results of the survey contact: asa22010@student.mdu.se

* Indica una domanda obbligatoria

BACKGROUND

1. **1) What is your role within the company?** *(If other please specify)* *

    Contrassegna solo un ovale.

    ◯ Software architect

    ◯ Software developer

    ◯ Software tester

    ◯ Requirement engineer

    ◯ Data engineer/ Data scientist

    ◯ Project manager

    ◯ Product owner

    ◯ Business analyst

    ◯ Altro: _____

2. **2) What is the size of the team (number of colleagues) you work with?** *

    _____

3. **3) What is the domain of the company you work for?** *(If other please*   *
    specify)

    Contrassegna solo un ovale.

    ◯ Automative

    ◯ Aerospace

    ◯ Railway

    ◯ Telecommunication

    ◯ Defense industry

    ◯ Healthcare

    ◯ Government

    ◯ Altro: _____

4.   **4) What type of software is your team developing?** *(If other please specify)* *

Contrassegna solo un ovale.

◯ Software for embedded systems

◯ Application software

◯ Altro: _____

For each of the following questions, please mark how they apply to your work with informal diagrams representing aspects of software.

5.   **5) Please specify how each of the following questions relates to your work.** *

Contrassegna solo un ovale per riga.

	Never	Yearly	Monthly	Weekly	Daily
How often do you create diagrams?	◯	◯	◯	◯	◯
How often do you edit diagrams?	◯	◯	◯	◯	◯
How often do you read/ use diagrams?	◯	◯	◯	◯	◯

6. **6) The degree to which I use the diagrams for:** *

Contrassegna solo un ovale per riga.

	Never	Normally no, but in exceptional cases yes	Normally yes, but in some exceptional cases no	Always
Capture clients requirements	◯	◯	◯	◯
Analyze software requirements	◯	◯	◯	◯
Design software architecture	◯	◯	◯	◯
Design software implementations	◯	◯	◯	◯
Visualize an idea/ a concept	◯	◯	◯	◯
Debug source code	◯	◯	◯	◯
Refactor source code	◯	◯	◯	◯
Generate source code	◯	◯	◯	◯
Communicate with your team/ other teams	◯	◯	◯	◯
Communicate with the clients/ end users	◯	◯	◯	◯
Explain an issue to someone else	◯	◯	◯	◯
Help me think/ Understand an issue	◯	◯	◯	◯

Document a

Document a
system

system

○   ○   ○   ○

---

7.   **7) Are there any other ways in which you use diagrams that are not listed? ***

_____

_____

_____

_____

_____

8.   **8) What do you represent by the diagrams? You can choose more than**   *
     one option*. (If other please specify)*

Seleziona tutte le voci applicabili.

☐ a sequence of activities/ decisions/actions that occurs in a process/ workflow

☐ the various states and transitions of a system

☐ interfaces, components and dependencies of a system

☐ classes of a system, their attributes, methods, and the relationships between classes

☐ interaction between system users and the system itself

☐ interactions between objects or components within a system over time

☐ distribution of software artifacts across different nodes in a networked environment

☐ timing and duration of signals, events, or actions within a system or between
different components

☐ structure and connections of computer networks, including devices, servers, routers,
and connections

☐ connection and relationship between ideas/concept/ information

☐ Altro: _____

9.   **9) Which tools do you use to create/ edit these diagrams?** *(If other please*   *
      specify)

Seleziona tutte le voci applicabili.

☐ Microsoft Visio

☐ PowerPoint

☐ Drawio

☐ Astah

☐ Scade

☐ Whiteboard/Pen and paper

☐ Altro: _____

10.   **10) To which degree do the diagrams contain UML elements?** *

Contrassegna solo un ovale.

◯ No UML elements

◯ Minority UML elements

◯ Majority UML elements

◯ Only UML elements

◯ I don't know

11.   **11) Which type of UML elements are present in the diagrams you are**   *
      referring to? You can choose more than one option. *(If other please*
      specify)

Seleziona tutte le voci applicabili.

- [ ] Use case
- [ ] Actor
- [ ] Class
- [ ] State
- [ ] Transition
- [ ] Object
- [ ] Package
- [ ] Sequence
- [ ] Deployment
- [ ] Component
- [ ] Activity
- [ ] Association
- [ ] Generalization/Inheritance
- [ ] Dependency
- [ ] Aggregation
- [ ] Multiplicity
- [ ] Composition
- [ ] None
- [ ] I don't know
- [ ] Altro: _____

12.   **12) When I create/ update the diagrams, do you have the freedom to use**   *
      every type of symbol/ syntax that you want?

Contrassegna solo un ovale.

- ( ) Never
- ( ) The minority of the time
- ( ) The majority of the time
- ( ) Always

13.   **13) Do you include a legend in the diagrams denoting the meaning of**   *
      elements used

Contrassegna solo un ovale.

   ( ) Never

   ( ) The minority of the time

   ( ) The majority of the time

   ( ) Always

14.   **14) How many colleagues collaborate on creating these diagrams,**   *
      including yourself? *Please estimate the number.*

_____

15.   **15) Roughly, how often do you update the diagrams to reflect changes to**   *
      the software? (*If other please specify***)**

Contrassegna solo un ovale.

   ( ) Never

   ( ) Yearly

   ( ) Monthly

   ( ) Weekly

   ( ) Daily

   ( ) Altro: _____

16. **16) During which software development phase do you create these** **diagrams?** *(If other please specify)*   *

Contrassegna solo un ovale.

⬭ Requirement gathering , analysis and specification

⬭ Design

⬭ Implementation

⬭ Testing

⬭ Operation and manteinance

⬭ Altro: _____

17. **17) What is the target audience that reads and uses these diagrams for** **their tasks?** *(If other please specify)*   *

Seleziona tutte le voci applicabili.

☐ Developers/ testers in my team

☐ Developers/ testers in another team

☐ Software architects

☐ Requirement analysts

☐ Domain experts

☐ Project managers

☐ Clients

☐ End-users

☐ Myself

☐ Altro: _____

18. **18) Are there any questions that we haven't asked but you anticipated or** **were expecting?**   *

_____

_____

_____

_____

19. **19) Do you have any additional comments/ feedback about the   *
     questionnaire?**

_____

_____

_____

_____

_____

THANK YOU FOR YOUR CONTRIBUTION AND YOUR TIME!
                WE APPRECIATE IT!

_____

Questi contenuti non sono creati né avallati da Google.

Google Moduli