

Survey

Knowledge Sharing in Software Development

Thank you for agreeing to participate in this survey!

Within the European research project TEAM we are conducting a scientific study to understand problems and practices of knowledge sharing in software development. Therefore, your opinion is important to us. Your answers are voluntary and will be kept in strict confidence. There are no false and true answers. The survey will take you approximately 10 minutes. **Please select the answer based on your own experience from the most recent development projects you were working on.** After completion, please return this survey at the SE 2008 registration desk. As a small thank you we will raffle 2 iPods among all entries.

Please mark answers like this:



Please mark corrections like this:



= Please check just one option

= Check multiple options if appropriate

I. Context

1. How many years have you been developing software professionally?

- 0–2 years
- 3–5 years
- 6–10 years
- > 10 years

2. How large is the company you work for?

- Small (1–50 employees)
- Medium (50–500 employees)
- Large (> 500 employees)

3. What kinds of software projects do you work on?

- Public open source
- Closed source (proprietary and private source code)
- Both

4. How would you describe your development process?

- Heavyweight process (e.g. Waterfall, RUP, V-Model)
- Agile process (Extreme programming, lean development, Scrum)
- No process defined
- I don't know

5. How would you describe your role in the development project?

- Developer
- Tester
- Architect
- Requirement engineer
- Project manager

II. Interaction in Development Projects

6. *How many people do you work with in a team (same project)?*

- Only me
- 2–7 people
- 8–15 people
- > 15 people

7. *Where are your team members located?*

- Same room
- Same building
- Same city
- Same country
- Different countries

8. *Including your team members, how many people do you interact with at least once a week for achieving development tasks?*

- 0–7 people
- 8–15 people
- 16–30 people
- More than 30 people

9. *How would you describe the style of these interactions?*

- Mainly direct face-to-face interaction
- Mainly other interaction styles (e.g. phone, computer-supported communication)
- Equally direct face-to-face and other interactions

10. *How many of the people, you interact with, work for different employers than yours?*

- None
- Less than 50%
- More than 50%

III. Knowledge Problems

Which problems do you encounter in the following situations?

11. When I'm developing code, I need to know...

	I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
What data structures and algorithms can I use to implement specified functionality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How did other developers implement similar functionality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How are others going to use my class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Which design patterns could be applied here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am I following all development conventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How can I use a particular feature in my development tool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others (please fill in):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. When I'm trying to understand other's code, I need to know...

	I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
What was the coder's intention as he wrote this	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What is the program supposed to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Why was this code implemented this way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who has experience with this code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who wrote this piece of code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others (please fill in):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. When I reuse a component, I need to know...

	I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
If the component provides certain functionality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to configure the component	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to extend existing functionality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to use the API (i.e. create and use objects)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who has experience with the component	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others (please fill in):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. When I try to fix an error, I need to know...

	I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
How can I reproduce the error	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What is the cause of the error	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What can I do to solve the error	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did someone else solve similar errors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others (please fill in):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

IV. Information access

15. Which sources do you consult to find answers for problems during development?

	Not Available/ I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
Other People	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project Artifacts					
Issue and bug reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
API description	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments in source code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commit messages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal Artifacts					
Personal notes (e.g. logbooks, diaries, post-it's)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal e-mails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work item/task descriptions (Todo's)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge Management Systems					
Intranet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project or organization Wiki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experience Databases / groupware systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internet					
Forums and mailing lists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Web search engines (e.g. Google, Yahoo)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public documentation / web pages I know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others (please fill in):					

16. How often do you encounter the following problems when you search answers for problems during development?

	I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
I can't specify my question appropriately in search tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not know where to find answers to my questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Answers to my questions are outdated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Answers to my questions are too general (out of context)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Answers to my questions are scattered across various sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Answers to my questions are not available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't have rights to access required information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experts are not willing to help answering my questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others (please fill in):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

V. Knowledge Sharing

17. Which channels do you use to share your particular development experiences (e.g. on reusing a component or solving a problem)?

	I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
Personal communications or emails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internal Wikis or groupware systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internal mailing lists and forums (answering questions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public mailing lists or forums (answering questions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing a piece of example code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments of a bug report	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments in source code (API docs or inline)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments in commit message	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shared documents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal notes (e.g. logbooks, diaries, post-it's)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others (please fill in):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. How often do you encounter the following problems when you try to share development experiences (e.g. on reusing a component or solving a problem)?

	I don't know	Never/ Rarely	Seldom ≈ monthly	Often ≈ weekly	Usually ≈ daily
I have no time left for sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can't identify information worth sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't know where to share information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can not define appropriate access permissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I must switch current context (tool, document, thought)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please fill in):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. If your development environment would allow you to automatically share information on your experiences, which information would you share with colleagues?

	Yes	No	I don't know
Actions I performed that resulted in a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The context of a problem (used libraries, versions, tools)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Actions I performed to solve a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information sources I checked to get a solution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What was my goal as I changed the code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How confident am I with the topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My name	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank You!

Please return this survey at the SE 2008 registration desk.

If you want to take part in the lottery of 2 iPods among the participants of this survey, please write your E-Mail address on the following page.

My E-Mail address

I want to take part in the lottery

[] yes

I want to be informed about the results of this survey

[] yes

Please return this sheet together with your completed survey at the SE 2008 registration desk. Your data will not be used for other purposes than those mentioned.