

Live Programming in Smalltalk

Dear Participant,

Live programming frees developers from the "edit-compile-run" loop and allows people to interact with running programs very easily. Live programming is getting popular and many of its features have been present in Smalltalk for a very long time.

We want to understand how Smalltalk software developers use live programming features in practice. We would be grateful if you could participate in our 10-minute survey on this subject.

As a thank you for your participation, you will be able to participate in a raffle to win a Smalltalk book of your choice. If you wish to participate, you will need to share your email with us, so that we can contact you. The email will not be associated with your answers.

Thank you and we really hope you enjoy participating in our survey!

Juraj Kubelka, PhD Student at the University of Chile

Romain Robbes, Professor at Free University of Bozen-Bolzano

Alexandre Bergel, Professor at the University of Chile

Demographic Information

1. How much Smalltalk experience do you have?

Mark only one oval.

- ☐ 2 years or less
- ☐ 3 to 5 years
- ☐ 6 to 10 years
- ☐ more than 10 years
- ☐ Not applicable

2. Where did you gain your Smalltalk experience?

Mark only one oval.

- ☐ Primarily in industry
- ☐ Primarily in academia (student, profesor)
- ☐ In both (academia and industry)
- ☐ Other: _____

3. How often do you develop software?

Mark only one oval.

- ☐ Daily
- ☐ Weekly
- ☐ Less than weekly

Check all that apply.

- Mark only one oval.

- Mark only one oval per row.

Mark only one oval per row.

Mark only one oval per row.

[illegible]

9. **I keep inspector windows open for long periods of time.**

A long period of time corresponds to keeping an inspector window open during a large portion of a programming session, e.g. more than one hour.

Mark only one oval per row.

	Very often	Often	Regularly	Occasionally/ Sometimes	Rarely	I do not know	Not applicable
Select:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. **It is easy to access objects.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Confirm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. **Smalltalk offers many ways to access or inspect objects.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Confirm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. **Accessing objects helps me to understand how programs work.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Confirm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. **Accessing objects helps me to get immediate information about objects and/or program states.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Confirm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Debugging Programs

We refer to all usages of the debugger or similar tools, but not immediately closing the "pre-debug window" that automatically appears when there is a runtime error.

14. **I debug programs ...**

Mark only one oval per row.

	Very often	Often	Regularly	Occasionally/ Sometimes	Rarely	I do not know	Not applicable
Select:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. **I modify variables in debugger windows ...**

Mark only one oval per row.

	Very often	Often	Regularly	Occasionally/ Sometimes	Rarely	I do not know	Not applicable
Select:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. **I evaluate code snippets and/or run methods in debugger windows ...**

Mark only one oval per row.

	Very often	Often	Regularly	Occasionally/ Sometimes	Rarely	I do not know	Not applicable
Select:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. **Debugging programs helps me to understand how the programs work.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Confirm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. **Debugging programs helps me to get immediate information about program behaviors and/or states.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Confirm:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Program Manipulation

Program manipulation includes all the types of changes to a program while it is running, as opposed to changes to a program that is re-executed after changes are made. Modifying a tool while it is open is an example of this.

19. I modify source code of running programs ...

Mark only one oval per row.

[illegible]

20. **Modifying running programs helps me to understand how programs work.**

Mark only one oval per row.

[illegible]

21. **When I change the source code of a running program, I expect to see the effect of my changes immediately or very soon after.**

Mark only one oval per row.

[illegible]

Code Snippets

A "code snippet" is a piece of executable code that you may write in a Playground or a Workspace.

22. I write code snippets ...

Mark only one oval per row.

[illegible]

23. Writing code snippets helps me to identify what is the cause of a bug.

Mark only one oval per row.

[illegible]

24. **Writing code snippets helps me to learn new libraries and/or programs.**

Mark only one oval per row.

[illegible]

- Mark only one oval per row.

[illegible]

- Mark only one oval per row.

[illegible]

Source Code Examples

Source code examples are small pieces of code showing how to implement a single piece of functionality.

27. I search for source code examples ...

We understand "general source code" as looking for examples anywhere in source code using class references and/or method senders/ implementors.

Mark only one oval per row.

[illegible]

- 28. Relevant source code examples are easy to find.**

Mark only one oval per row.

[illegible]

29. **Source code examples are easy to execute.**

Mark only one oval per row.

[illegible]

30. Source code examples are easy to modify.

Mark only one oval per row.

[illegible]

31. Source code examples helps me to learn new libraries and/or programs.

Mark only one oval per row.

[illegible]

Discussing Programs and Programming Issues

32. How often do you ask for examples, program usages, and/or issue solutions ...

Mark only one oval per row.

[illegible]

33. **What do you use (attach) when discussing programming issues electronically?**

We do not ask about frequency here.

Mark only one oval per row.

[illegible]

Familiar vs. Unfamiliar Code

Familiar code is source code that you know well, such as code that you wrote, contribute to, or regularly use. Unfamiliar code is source code that you do not know as well.

34. **It is easier to read a source code, rather than write a test case for it.**

Mark only one oval per row.

[illegible]

35. **It is easier to read a source code, rather than write a code snippet to run it.**

Mark only one oval per row.

[illegible]

36. **It is easier to understand a source code by reading it, rather than by running its examples.**

Mark only one oval per row.

[illegible]

37. **It is easier to find out a bug in a program by reading its source code, rather than by running the program.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Familiar code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfamiliar code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38. **I prefer to learn a source code by running examples, rather than learning it by reading its source code.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Familiar code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfamiliar code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. **I prefer to check my source code changes as often as possible, rather than after I finish a task.**

Mark only one oval per row.

	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	I do not know	Not applicable
Familiar code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfamiliar code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Improvements

Please share with us any remarks, observation, or ideas for improvement you would like to have on the topics of:

40. **Live programming in Smalltalk**

41. **Electronic communication in Smalltalk**
