

# Indirect Conflicts Survey

My name is Jordan Ell and I am a software engineering researcher at the University of Victoria. I have created this poll to ask software developers about indirect conflicts.

Indirect conflicts occur when a source code change in one area of a project negatively affects another part of the project.

A simple example could be a change to a method signature (its name or input variables change) which then breaks the compilation of your project. A more complex example could be a precondition was added to a method (check to see if  $x < 0$ ) and if this is met it will return a different result. This may now cause in a bug when this method is invoked from elsewhere in the project. Other examples could be database schema changes affecting model classes. The list goes on.

Indirect conflicts can be found inside of a project itself, when projects rely on each, the use of libraries, or even in the use of software services.

The goal of this survey is to determine how frequent these problems are and if there are any tools being used or that could be created to help this issue.

By completing this survey you are agreeing to the consent form found here:

[https://dl.dropboxusercontent.com/u/16148362/survey\\_consent.pdf](https://dl.dropboxusercontent.com/u/16148362/survey_consent.pdf)

## 1. How many years of software development experience do you have?

This experience can be from professional, individual, or academic experience.

*Mark only one oval.*

- Less than 2
- 2 to 4
- 4 to 10
- More than 10

## 2. What development environment do you have more experience with?

*Mark only one oval.*

- Individual projects
- Small team projects
- Multi team projects
- Large enterprise software projects involving multiple teams and sub projects.

**3. How often do you experience indirect conflicts in your software development?**

This could be in terms of per day, per week, per month, etc.

.....

.....

.....

.....

.....

**4. How often do indirect conflicts occur in the early stages of a project's development?**

This could be in terms of per day, per week, per month, etc.

.....

.....

.....

.....

.....

**5. How often do indirect conflicts occur before the first release of a project?**

This could be in terms of per day, per week, per month, etc.

.....

.....

.....

.....

.....

**6. How often do indirect conflicts occur after the first release of a project?**

This could be in terms of per day, per week, per month, etc.

.....

.....

.....

.....

.....

**7. How often do indirect conflicts occur late in a project's lifetime?**

This could be in terms of per day, per week, per month, etc.

.....

.....

.....

.....

.....

**8. Please indicate your level of agreement with the following statements regarding indirect conflicts.**

*Mark only one oval per row.*

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
When developing an individual project, indirect conflicts are likely to occur inside your own code.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When developing in a single small team (e.g. 2 to 5 developers), indirect conflicts are likely to occur between one developer's code and another developer's code.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When developing in a multi team project, indirect conflicts are likely to occur between one team's code and another team's code.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. **Given a tool which would alert you when a method you use gets modified, please indicate for each of the following change types, the frequency you would like to be alerted to the change type.**

*Mark only one oval per row.*

	Never	Occasionally	Most Times	Always	I Don't Care
The method name or input variables change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A check performed on an input variable is added, deleted, or modified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The algorithm of the method changes (This could be anything between input checks and output checks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The change makes an aspect the UI to behave differently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The method run time changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A check performed on the output is added, deleted, or modified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. **Are there any other change types not listed above that you would want to be alerted about?**

.....

.....

.....

.....

.....

11. **Are there any tools or processes that you use in your projects to either catch or avoid indirect conflicts?**

.....

.....

.....

.....

.....

**12. What type of tools or process do you use to help debug or solve indirect conflict issues?**

.....  
.....  
.....  
.....  
.....

**13. What would you look for in a tool that could help developers solve indirect conflict issues?**

.....  
.....  
.....  
.....  
.....

