

# Human Aspects of Software Engineering

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# Consent Form "TaskSnap" Study

Version 2.0

#### **Principal Investigators**

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#### **Purpose**

Software developers usually work on multiple tasks during a day and switch frequently between them, for example, to help co-workers with their questions, switch to another task when they are stuck or to start a new task. These task and context switches may be costly, as developers need to reestablish the applications and documents associated with a task (working context) and their mental model, goals, and plans (mental context).

Our study researches a novel approach called "TaskSnap" to support software developers in capturing and resuming tasks. By clicking a physical or virtual button, the user can create a snapshot of the currently active task context. Then, the user can curate it, removing no longer needed artifacts. Once captured, TaskSnap can help users switch between tasks more fluently, preserve context when interruptions occur, and overall reduce clutter on the computer.

#### **Study Procedure and Collected Data**

Overall, the study is conducted online, taking approximately 1 hour and 45 minutes, and consists of the following stages:

- 1. Onboarding and Setup (~15 min): After the researcher initiates the online meeting (using Microsoft Teams), the goals and procedure of the study are explained to you, and you will have the opportunity to ask remaining questions regarding the study and consent form. In case there are no more questions, you will be asked to log into a virtual machine. The researcher will explain how to interact with TaskSnap and allow you to try out TaskSnap for yourself, before starting the study. Then, the researcher will instruct you to begin the implementation stage.
- Tasks Implementation (~70 min): To complete this stage, you will be given instructions to work on tasks that resemble developers' real-world tasks. These tasks are two code change tasks, an information seeking task, and Go/No-Go tasks to better understand your mental load. You will be instructed for when to switch between the tasks.
   Note that you cannot use Copilot, ChatGPT, or similar Al-based tools to help in the tasks. You are free
  - (and encouraged) to search online for answers, except in the original GitHub repository of the application you will work with.
- 3. **Final Interview (~20min):** In a final interview, you will be asked questions on your experience of participating in the study, and the value and impact of using TaskSnap for capturing and resuming tasks.



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#### **Risks & Benefits**

There are no risks involved in participating in this study, apart from your time investment. The researchers estimate the total amount of time needed to be approximately 1 hour and 45 minutes. You are free to withdraw your participation at any point during the study.

By participating, you can learn something about your own task switching and resumption strategies. Also, you will receive a CHF/USD 30 online gift card. Further, you contribute to our long-term objective to support knowledge workers in their professions by improving task resumption and dealing with interruptions.

#### **Data Storage, Confidentiality & Retention**

The following types of data are stored by the TaskSnap tool or recorded by the researchers. Note that the study is conducted inside a Virtual Machine which means that no data from your own computer will be collected.

#### TaskSnap Data

The TaskSnap tool stores contextual data related to the artifacts you used for completing the change tasks during the study, including:

- Data from Visual Studio Code: current branch, last commit message, name and path of workspace, name and path of currently open files, TODO messages in uncommitted code, name of edited methods and edited lines of code.
- 2. Data From the Web Browser: website titles and URLs of each accessed website.
- 3. Data From Open Applications: path, app names and window titles of used applications.
- 4. **TaskSnap Interaction Data**: TaskSnap will log interaction data, such as when a context snapshot is created, postponed, inspected, or resumed.

The <u>content</u> of web pages, files, and applications is NOT accessed.

#### Screen Recording & Interview Responses

The entire study session is conducted through a secure video conferencing solution, Microsoft Teams. At the beginning, the researchers will ask for your consent to record the session (screen and audio), which will make it easier to analyze the study data and impact of TaskSnap later. Before starting the interview, the researchers will ask your consent for using a professional service to transcribe the recorded interview.

All data will be treated confidentially. Your contact information will be stored separately from the data and will never be associated with it after analyzing the data. In any case, anonymized, non-identifiable data will not be kept for longer than three years, after which the researchers will permanently delete it.

#### **Uses of the Study Data**

The researchers will only use pseudonyms with your data, and no identifying information will ever be shared outside of the research group and the confines of this study without your explicit permission. The results of this study will be published in a scientific publication, such as an academic journal or conference proceeding. Data presented in presentations or publications will never allow identifying individual people.

#### **Contact for Information about the Study**

If you have any questions or desire further information with respect to the study, you may contact Juliana Souza (<u>jsouza@ifi.uzh.ch</u>) or Dr. André Meyer (<u>ameyer@ifi.uzh.ch</u>).



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### **Consent for extended Data Uses**

| With your explicit consent, you can allow the research using a transcription service:  | ners to transcribe the audio recording of the interview                                     |
|--|---|
| ☐ I allow the use of a transcription service to transcri   | be my interview.  |
| With your explicit consent, you can allow the re experiment:   | searchers to record the screen sharing during the   |
| ☐ I allow the researchers to record my screen sharing publishing the study results.  | g during the experiment and keep the recordings unti  |
| Consent for Study Participation  Your participation in this study is entirely voluntary. You during the study, without needing to provide any withdrawal will be retained and used in this study, unless that the study is entirely voluntary.   | eason. Any information you contribute up to you   |
| <ul> <li>With your signature on this form you confirm the follow</li> <li>I understand the goals and procedures of the study</li> <li>An investigator explained the study and the listed confirm the follow</li> <li>I understood the answers and accept them.</li> <li>I am at least 18 years old.</li> <li>I had enough time to make the decision to participate.</li> </ul> | v and the applicable conditions.<br>onditions to me. I had the opportunity to ask questions |
| In no way does this waive your legal rights or release th or professional responsibilities.  | e investigators or involved institutions from their lega                                    |
| Participant's name   |   |
| Location Date  | Participant's signature   |