Consent Form "TACOS" Study
Version 3.3

Principal Investigators

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Purpose

Software developers usually work on multiple tasks during the 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 goals, intentions, and plans (mental context).

Our study researches a novel approach called "TACOS" to support software developers in capturing and resuming tasks. TACOS collects relevant information from the IDE and web browser and presents this to developers when resuming a task. This can help users switch between tasks more fluently, preserve context when interruptions occur, and support them in continuing their task after an interruption.

Study Procedure and Collected Data

Overall, the study is conducted online in two about 1-hour long sessions, taking approximately 1 hour and 45 minutes in total, and consisting of the following stages:

1. **Onboarding and Setup (~5 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 install and test TACOS. TACOS can be installed within VS Code on your own machine, or can be used inside a provided virtual machine. Then, the researcher will instruct you to begin the implementation stage.
2. **Tasks Implementation (~75 min)**: To complete this stage, you will be given instructions to work on tasks that resemble developers' real-world tasks. These tasks are three code change tasks. You will be instructed on when to switch between the tasks.
   Note that you are not allowed to use Copilot, ChatGPT, or similar AI-based tools to help with the tasks. You are free (and encouraged) to search online for answers. Within this step the interruptions will occur, and the tasks will be continued in the second session. The second session should be scheduled at least 24 hours after the first session.
3. **Final Interview (~20 min):** In a final interview, you will be asked questions on your experience of participating in the study, and the value and impact of using TACOS for capturing and resuming tasks.

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. To reduce the impact on your work, you are free to schedule your study participation based on your availability and preferences. 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 40 CHF/EUR/USD 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 TACOS tool or recorded by the researchers. The study will be conducted either on your machine or in a provided virtual machine. In both cases, the collected data can be reviewed before transmission to the researchers.

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

1. **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, the content of the currently open code file, and the currently uncommitted code changes.
2. **Data From the Web Browser**: website titles and URLs of each website accessed during the lab study.

TACOS Data Processing
The data collected by TACOS is processed locally on the machine running TACOS and sent to a LLM server for processing. The LLM server does not store any data, is administrated by the HASEL research group, and hosted in the University of Zurich ScienceCloud. The data collected during the study session can be reviewed by you at the end of the study before submitting it to the researchers.

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 TACOS 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 Alexander Lill (lill@ifi.uzh.ch) or Dr. André Meyer (ameyer@ifi.uzh.ch).

Consent for Data Use

 With your explicit consent, you allow the researchers to analyze the data you submit at the end of the TACOS study session to analyze the tool's impact on software development work.

 ❏ Yes / ❏ No I allow the analysis of the TACOS data (this is a requirement to participate)

Consent for extended Data Uses

 With your explicit consent, you can allow the researchers to transcribe the audio recording of the interview using a transcription service:

 ❏ Yes / ❏ No I allow the use of a transcription service to transcribe my interview.

 With your explicit consent, you can allow the researchers to record the screen sharing during the experiment:

 ❏ Yes / ❏ No I allow the researchers to record my screen sharing during the experiment and keep the recordings until publishing the study results.

Consent for Study Participation

 Your participation in this study is entirely voluntary. You are free to withdraw your participation at any point during the study, without needing to provide any reason. Any information you contribute up to your withdrawal will be retained and used in this study, unless you request otherwise.

 With your signature on this form you confirm the following statements:
- I understand the goals and procedures of the study and the applicable conditions.
- An investigator explained the study and the listed conditions to me. I had the opportunity to ask questions. I understood the answers and accept them.
- I am at least 18 years old.
- I had enough time to make the decision to participate and I agree to the participation.

 In no way does this waive your legal rights or release the investigators or involved institutions from their legal or professional responsibilities.

_____
Participant's name

_____   _____
Location, Date   Participant's signature