**INFORMED CONSENT FORM**

Project Title:  **Information Foraging Theory in Software Maintenance**

Principal Investigator: **Margaret Burnett, Electr. Engineering & Computer Science.**

Research Staff: **Chris Bogart, Amber Shinsel, David Piorkowski, Scott Fleming, Christopher Scaffidi, Kevin McIntosh**

### WHAT IS THE PURPOSE OF THIS STUDY?

This is a research study. The purpose of this study is to understand how programmers learn code when debugging Java programs. The results of this study will help inform the design of future programming environments.

### WHAT IS THE PURPOSE OF THIS FORM?

This consent form gives you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, the possible risks and benefits, your rights as a volunteer, and anything else that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not. This process is called “informed consent”. You will be given a copy of this form for your records.

### WHY AM I BEING INVITED TO TAKE PART IN THIS STUDY?

You are being invited to take part in this study because you are a Java programmer.

### WHAT WILL HAPPEN DURING THIS STUDY AND HOW LONG WILL IT TAKE?

If you agree to participate, your involvement will consist of one session, which will last up to two hours. At the beginning of the session, you will be asked to fill out a background questionnaire. After filling out the questionnaire, you will be asked to debug a Java program with a known defect. You will be provided a description of the defect and asked to fix the program. Debugging the program will take place in the Eclipse IDE. You will be asked to “think aloud” as you work, and an experimenter will take notes on what you say. The computer will also log everything you do with the interface while a camera records video and audio of you. The bug is difficult, so it is not expected that you will be able to complete the task; we are only interested in seeing how the tools help or hinder you as you approach the task.

After the time is up, you will be given an interview about your understanding and attitudes about the software you are debugging and the tools we have provided to help with that. The interview will also be recorded.

### WHAT ARE THE RISKS OF THIS STUDY?

There are no foreseeable risks other than the potential for breach of confidentiality

### WHAT ARE THE BENEFITS OF THIS STUDY?

There are no direct benefits to you as a participant in this study. We intend to use the information gathered to improve the design of future programming tools, which may be an indirect benefit.

### WILL I BE PAID FOR PARTICIPATING?

You will be compensated $20 for participating in this research project.

### WHO IS PAYING FOR THIS STUDY?

### The Department of Defense’s Air Force Office of Scientific Research is paying for this study.

### WHO WILL SEE THIS INFORMATION?

The information provided during this study will be kept confidential to the extent permitted by law. However, federal government regulatory agencies and the Oregon State University Institutional Review Board (a committee that reviews and approves research studies involving human subjects) may inspect and copy records pertaining to this research. To maintain confidentiality, random numbers will be assigned to all questionnaires and modification efforts. The random numbers’ ties to a participant’s name or ID will be destroyed as soon as data collection is complete. Most of the research data will be stored electronically (password-protected in a way that is accessible only to the research team). All data will be stored in a secure location. Hardcopies of data such as responses to questionnaire and interview questions will be shredded once data analysis has been completed. If the results of this project are published, participants’ identity will not be made public. The Department of Defense is paying for this study, and we will be sending the results to them in aggregated form.

### AUDIO/VIDEO RECORDING

By initialing in the space provided, you verify that you have been told that audio/video recordings will be generated during the course of this study. You will be identified on the recordings by code number; only the research team members will have access to the recordings. The recordings will be stored in a secure location and will be transcribed by a research team member (or by using speech recognition software). The recordings will be destroyed once data analysis has been completed.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Participant’s initials

### DO I HAVE A CHOICE TO BE IN THE STUDY?

If you decide to take part in the study, it should be because you really want to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering. If you decide not to take part, or if you stop participating at any time, your decision will not result in any penalty or loss of benefits to which you may otherwise be entitled. If you withdraw from the study, your data will be destroyed.

You will not be treated differently if you decide to stop taking part in the study. You can skip questions in the questionnaires and interview if you would prefer not to answer those. If you choose to withdraw from this project before it ends, the researchers may keep information collected about you and this information may be included in study reports.

### WHAT IF I HAVE QUESTIONS?

If you have any questions about this research project, please contact: Prof. Margaret Burnett, (541) 737-2539, [burnett@eecs.oregonstate.edu](mailto:burnett@eecs.oregonstate.edu).

If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at (541) 737-8008 or by e-mail at [IRB@oregonstate.edu](mailto:IRB@oregonstate.edu).

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

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Participant's Name (printed)

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(Signature of Participant) (Date)