Software Security Expert Judgment Elicitation Workshop

Table 1-Build and run, or reverse engineer this code

```c
//expert_workshop.c
//to build:
//$ gcc expert_workshop.c -o expert_workshop
//to run:
//$ ./ expert_workshop

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <stdbool.h>

int main() {
char stranswer1[3];
char stranswer2[3];
char overflowme[32];
int ans1;
int ans2;
int participate_in_workshop=false;
printf("Should you attend the workshop?\n\n");
while (participate_in_workshop==false) {
printf("1) Have you ever been asked to estimate a software REverse engineering task (yes or
no)?\n");
gets(stranswer1);
strcpy(overflowme, "participant");
if (strcmp(stranswer1,"yes")==0)
ans1=1;
else
ans1=0;
if (ans1==1) {
printf("(2) Was it challenging determining the answer (yes or no)?\n");
gets(stranswer2);
if (strcmp(stranswer2,"yes")==0)
ans2=1;
else
ans2=0;
if (ans2==0) {
printf("REuben doesn't believe you.\n");
}
printf("It is REcommended you participate in the workshop.  Will you attend (yes or
no)?\n");
gets(stranswer2);
if (strcmp(stranswer2,"yes")==0) {
participate_in_workshop=true;
break;
}
}
else {
printf("(1) Do you perform or lead software REverse engineering tasks (yes or no)?");
gets(stranswer2);
if (strcmp(stranswer2,"yes")==0)
ans2=1;
else
ans2=0;
if (ans2==1) {
printf("It is REcommended you participate in the workshop.  Will you attend (yes or
no)?\n");
gets(stranswer2);
if (strcmp(stranswer2,"yes")==0) {
participate_in_workshop=true;
break;
}
}
else {
printf("It is not REcommended you participate in the workshop. Please disREgard this
message.\n");
exit(1);
}
}
}
printf("Ok %s, REuben will see you at the workshop!\n",overflowme);
exit(0);
}
```

Attending this workshop will benefit all persons performing or estimating software reverse engineering tasks

- Do you perform or lead software reverse engineering (RE) or vulnerability assessment tasks?
- Have you ever been asked to estimate software reverse engineering or vulnerability assessment tasks?
- If so, was it challenging determining the answer?

If you answered yes to any of the above questions, this problem area is important to you!

This flyer is soliciting software reverse engineering and vulnerability assessment personnel, including project managers, to participate in a research study titled, "*Towards Understanding the Effects of Analysis Environment upon Security Vulnerability Discovery in Large Software*". JHU-APL's Reuben Johnston (AOD/QWD) is leading this George Washington University (GWU) academic dissertation research study under the direction of Dr. Thomas Mazzuchi of the Department of Engineering Management and Systems Engineering at GWU. The study will explore the effects of various software characteristics and analysis environments upon the post-release discovery of security vulnerabilities.

Information session dates	Workshop dates
August 20th, 1230-1300, 21-S132	Pilot Workshop I: Saturday, August 23, 2014, between 14:00 and 18:30
September 3rd, 1230-1300, 21-S132	Workshop Series II: Monday-Thursday, September 15-18, 2014, between 12:00 and 13:00
September 10th, 1230-1300, 21-S132	Workshop Series III: Monday-Thursday, September 22-25, 2014, between 12:00 and 13:00
	Workshop IV: Saturday, October 25 2014, between 10:00 and 14:30
	Workshop V: Saturday, November 22, 2014, between 14:00 and 18:30

Attending an information session does not obligate you to participate in the study. You may still volunteer even if you cannot attend the information session. You may attend the workshop without participating in the study (if space is available). All questions should be directed to Reuben Johnston at x85869 (240-228-5869) or Reuben.Johnston@jhuapl.edu.

Participants will be asked to attend **one** 4-hour elicitation workshop at the Johns Hopkins University Applied Physics Laboratory. Participation is not limited to JHU-APL employees and readers are encouraged to invite their qualified colleagues.

Through this collaborative learning experience volunteer participants will help advance the science of software vulnerability discovery modeling. Participants will benefit from:
- REuben's crash course introduction to approximately 50 metrics which possibly influence software analysis and reverse engineering (plus, reflection time to ponder their levels of significance)
- RE practice exercises on decompiled JAVA code
- RE and vulnerability assessment knowledge exercises (plus, time to think about your personal software analysis and reverse engineering process)
- Practice estimating discovery tasks, given certain different product release scenarios and analysis environments
- Concluding group discussions on
  - Metric influences upon discovery
  - Software analysis and reverse engineering processes used by the different participants
  - What makes the estimation process difficult

During the elicitation session, questions will be based upon **crafted** release scenarios for **fictional** software products. Main elicitation sessions will ask the participants what the expected discovery counts would be within specified time intervals for various release scenarios and analysis environments. In addition, there will be a separate set of RE and security analysis practice exercises (listed above).

No questions will solicit personally identifiable information. Reported results of this research study will not name or identify attendees. Workshops will be no more than 4 hours (not including the two 15-minute breaks) and this event is strictly voluntary (i.e., not billable). Participants may refuse to answer any of the questions and may also stop at any time. Possible risks or discomforts which could be experienced during this study include: loss of confidentiality and minimal psychological stress (estimated to be comparable to experiences from undergraduate third or fourth year level computer laboratory examinations).

Additional pertinent information is located at the website listed below (e.g., information sheet and digital copies of this flyer). If you are interested in volunteering or learning more about this study, please contact Reuben Johnston at x85869 (240-228-5869) or Reuben.Johnston@jhuapl.edu.

Principle Investigator: **Dr. Thomas Mazzuchi**, GWU, mazzu@gwu.edu
Principle Contact: **Reuben Johnston**, JHU-APL, reuben.johnston@jhuapl.edu

Further information regarding this study may be obtained at http://www.reubenjohnston.com/Research.php