April 15, 2013

Team 19 Phase 1 of Inspection

**Laboratory # 8: Inspection**

**Morgan, Laura**

**Miaw, Jireh**

**Hauser, Steven**

**Dworak, Catherine**

**Bertoglio, David**

***Work Product***

**Documentation of Phase 1 of Inspection of Group 20’s source code**

***Document Revision Information***

**April 14, 2013 – Document created, Phase 1 inspection documented**

**April 19, 2013 – Rework documented**

**Approval Sheet**

**All group members whose names are listed below approve of the document and contributed fairly.**

**Member Names**

**Morgan, Laura**

**Miaw, Jireh**

**Hauser, Steven**

**Dworak, Catherine**

**Bertoglio, David**

**Pledge**

**On my honor, as a student, I have neither given nor received unauthorized aid on this assignment.**

**Names**

**Morgan, Laura**

**Miaw, Jireh**

**Hauser, Steven**

**Dworak, Catherine**

**Bertoglio, David**

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## Inspection Schedule

Phase 1 – Internal documentation & source-code layout

Monday, April 15 – 4:00 p.m. during in-lab.

Inspector – Catherine

## Checklists Used

### Phase 1

Internal documentation & source-code layout (single inspector).

* proper use of indentation for “levels” in code
* proper use of tabbing when declaring variables
* existence of columns of related items
* existence of white space (spaces after commas, variables, between methods etc.)
* use of new line when line is too long
* consistency followed with use of braces {} throughout
* sparing use of comments; only used to document unavoidable complexity
* identifiers
  + meaningful – names indicate purpose
  + underscores used as separators
  + capitalization of types, Classes
* constants
  + mixed case capitalization
  + no magic numbers (no embedded literals or constants)
  + only symbolic constants used
  + symbolic constants in all capital letters, separated by underscores
  + avoid abbreviations in names
* methods
  + mixed case for name
  + abbreviations avoided
  + names indicate function
  + “get/set” used where attribute is accessed directly
  + “is” used for Boolean methods
  + “find” used for methods that look something up
* variables
  + name should reveal purpose and/or type
  + plural if representing group of objects
  + iterator variables consistent (for example: i and j)
  + abbreviations avoided

## Results of Inspection

* proper use of indentation for “levels” in code

*line 201, else should be on next line*

* existence of white space (spaces after commas, variables, between methods etc.)

*line 58, extra space between (0, 3)*

*in GUI, spaces between “import” lines*

*white space in beginning public class GUI*

* use of new line when line is too long

*line 82 does not need to be on new line (“ + e.toString());”)*

* consistency followed with use of braces {} throughout

*should check consistency. Starting line 199 you being to put { on the same line as the method declaration and the if statement, rather than the next line. These braces should be moved to the next line. Check methods: getTouchValue(), verifyChecksum(), getChecksum()*

* sparing use of comments; only used to document unavoidable complexity

*comment on line 34 runs off screen*

*comment on line 53 doesn’t clarify code*

*unneeded code should be removed lines 95-100*

*comments in moveForward(), moveBackward(), turnLeft(), turnRight(), turn180(), stop() most likely unncecessary*

*in GUI, comment line 20*

*in GUI, line 163, 362, 460, 495, 596, 632, 637, 650*

* constants

*in GUI class, all private variables should be before public*

* + no magic numbers (no embedded literals or constants)

*in setSpeed() what are numbers 10 and 100?*

* methods

*methods between line 163 and 181 – unimplemented or unnecessary?*

* + abbreviations avoided

*getUltraValue() – consider changing to getUltrasonicValue()*

*getMicroValue() – consider not abbreviating*

* variables
  + name should reveal purpose and/or type

*in method setSpeed, int s does not reveal purpose*

* + abbreviations avoided

*variable “ret” – abbreviated for return? name does not indicate purpose, in methods: establishConnection(), getCheckSum()*

## Observations

Phase 1 of the inspection has been completed. Defects sent to Team 20 on 4/15/2013.

Note: Auto-generated GUI code was not inspected as thoroughly, as directed by Instructor.